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The Material
Culture of
the Mistassini

By Edward S. Rogers

Canada 1967

Department of the
Secretary of State

THE MATERIAL CULTURE
OF THE MISTASSINI



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THE MATERIAL
CULTURE OF
THE MISTASSINI

by Edward S. Rogers ✓

Ottawa, 1967

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Preface

The data on which this study is based were collected during a year's residence, from July 1953 until July 1954, with the Mistassini Indians. During the field-work, my wife and I spent the summers at the Mistassini village, located at the south end of Lake Mistassini, and the rest of the time, from late August until early June, with the Alfie Matoush hunting group.

The field-work was sponsored by the Arctic Institute of North America under contract with the Office of Naval Research, Washington. I wish to thank both of these organizations for their help and generosity. Many people aided this work in a variety of ways, and to all of them I am deeply indebted. I wish to thank Mr. and Mrs. Wilfrid Jefferys, then stationed at Mistassini by the Hudson's Bay Company, for their generous help and hospitality. Alfie Matoush and the members of his group deserve our special appreciation for allowing us to accompany them and to observe their activities. Furthermore, they assisted us continually, seeing to our needs and to our safety whenever the necessity arose. Without their support this work could not have been prepared.

Others besides those in the field gave much valuable assistance. I am grateful to the Royal Ontario Museum, University of Toronto, for allowing me the time necessary to prepare this work, and to the University of Toronto for a Grant in Aid of Research in the Humanities and Social Sciences to finish the report. I owe a debt of gratitude to Dr. W. W. Hill of the Department of Anthropology, University of New Mexico, for the many hours he spent reading and commenting on the original report from which this study stems. I should also like to thank Dr. Tom F. S. McFeat, formerly of the National Museum of Canada, Ottawa, for the encouragement he gave me during the preparation of this report. Furthermore, I wish to thank my wife, who accompanied me on the field-work, prepared the linguistic transcriptions of the native terms (Rogers, 1960, p. 90-113), and helped in many ways in the completion of the work. Finally, I am indebted to Mrs. Kathleen Wood for assistance in the final preparation of this report.

The terminology for the knots is taken from Kephart (1921) and that for the stitches from Carroll (1950). The photographs except the first four are through the courtesy of the National Museum of Canada and the Royal Ontario Museum, University of Toronto.

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Résumé

La présente étude a trait à la culture matérielle des Indiens Mistassinis. Les données présentées ont été rassemblées en 1953-1954 au cours d'une année d'enquête sur place chez les Mistassinis. Ces derniers parlent le Cree et habitent le centre du Québec méridional. Au cours de mois d'été, ils s'assemblent autour des comptoirs de vente situés à l'extrémité sud du lac Mistassini. Avec la venue de l'automne, les chasseurs se dispersent par groupes dans les régions avoisinantes où ils passent l'hiver à chasser, à piéger et à pêcher. Le printemps ou le début de l'été les ramène à l'extrémité sud du lac Mistassini.

Pour plus de clarté, l'exposé de la culture matérielle des Indiens Mistassinis a été divisé en plusieurs chapitres, dont chacun traite d'un sujet précis. L'auteur y décrit les matières employées à la fabrication d'un objet donné, la façon de le faire et son utilisation. Le présent travail vise surtout à établir des données précises en ce qui concerne une époque négligée dans l'étude des Indiens Montagnais-Naskapis de la péninsule du Labrador. Mais il comporte aussi l'étude de l'évolution de la culture matérielle d'un groupe donné de ces Indiens.

Le premier chapitre, *le campement*, se rapporte au logement, soit les divers genres d'abris des Mistassinis. Il est en outre question de l'ameublement et de la façon dont les habitants s'installaient à l'intérieur. Vient enfin le matériel employé dans le campement et dans le voisinage. Le deuxième chapitre est consacré aux *ustensiles*, aux *réceptifs* et aux *outils*. C'est la description d'un assortiment d'articles, certains de confection indigène et d'autres obtenus du commerce. Suit le troisième chapitre, *le vêtement*, la *litterie* et les *ornements personnels*. Le quatrième chapitre, *matériel employé pour se procurer nourriture et fourrures*, se divise en deux parties. La première traite de l'équipement de chasse et la deuxième, des agrès de pêche. Le cinquième chapitre est consacré au transport et s'intitule *Déplacements et moyens de transport*. Ce chapitre traite du matériel employé pour parcourir le pays, tant en hiver qu'en été. Il y est de plus fait mention des chiens de trait et des soins qu'on leur accorde. Le sixième et dernière chapitre, *Récréation et amusements*, a trait aux distractions des Indiens Mistassinis et aux principaux jeux auxquels ils s'adonnaient.

A titre de conclusions, l'auteur souligne les diverses façons dont la culture matérielle des Mistassinis a évolué depuis leurs premiers contacts avec les Blancs il y a environ trois cents ans. Divers changements sont énumérés que l'auteur tente d'expliquer. En dernier lieu se trouvent deux *annexes*. La première est la liste de tous les objets, ainsi que leur utilité, la façon de se les procurer et, s'ils sont de confection locale, qui des hommes ou des femmes les fabriquent. La deuxième annexe énumère les biens matériels de deux familles.

CHAPTER ONE

Introduction

The following report on the material culture of the Mistassini Indians of south-central Quebec has two objectives. First, it is intended simply to place on record observations made during the course of field-work among these people. This seems appropriate since there is such a dearth of information regarding the material culture of most Montagnais-Naskapi bands, and little has been recorded for the Mistassini people. The data are not placed in any theoretical framework, for it is a truism that the material culture of any people with a particular technology and subsistence pattern reflects the environment in which they live, and that the more undifferentiated the technology the more closely the material culture in general is so linked. It is rather hazardous to go beyond such a statement. As Brunhes has said, "All this material [i.e., items of material culture] is bound to depend to some extent on geographical conditions, but relatively it is largely independent of them and increasingly so in the case of civilized communities." (1952, p. 201)

The second objective is to examine the changes that have occurred in the material culture of the Mistassini Indians as a result of contact with Euro-Canadian culture in so far as this is possible. Since there are no detailed past accounts of Mistassini material culture to refer to,¹ one is forced to rely on inferences based on a knowledge of eastern subarctic culture in general. No one can doubt that changes have taken place, but interest here is the direction in which these changes have occurred. The Mistassini, like other eastern subarctic Indians, are a people rather unique in some ways, when compared to most other North American Indians. The usual fate of the greatest number has been to become 'reservation' Indians and to have their former way of life totally destroyed, with their material culture vanishing except as a fond memory or being modified in terms of native crafts. The Mistassini at the time this study was made had not experienced such a fate, in spite of the fact that they had been in contact with Euro-Canadians for approximately three hundred years. It is expected, though, that they will experience it before too many more years pass. What can account for this phenomenon? Their location deep within the eastern subarctic wilderness has in large measure shielded them from the pressures brought to bear on most other Indian groups in North America. Because of the particular environment in which this group found itself, the fur trader was the only outside agent to introduce significant changes during the long years of contact. And the fur trader desired that they maintain their former way of life, altering it only enough to exploit the fur-bearers as efficiently as possible. Neither the farmer nor the lumberman has had any interest in the country. Only recently has mining become important, and as it increases

¹The only possible exception to this statement is a paper by Speck (1930, p. 410-457), although in this case the information tends to float in time with a disregard to historical sequences.

vast changes can be expected to occur in the material culture of the Mistassini Indians. Government policy is another agency which has begun to affect the Indian and will increasingly do so in the future, altering still further the Indian's way of life and with it his material culture.

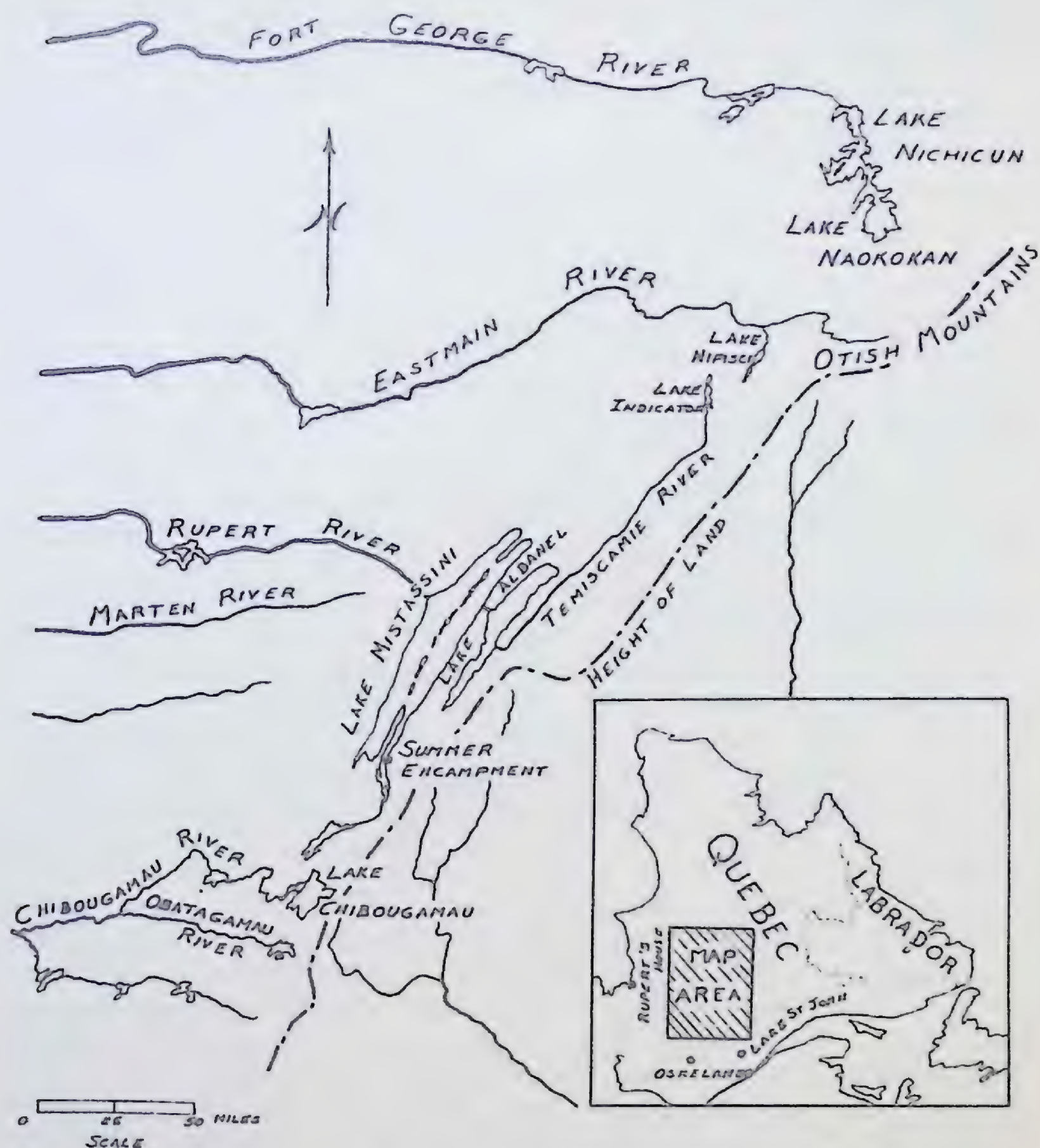
Before a detailed description of the material culture of the Mistassini is given, perhaps a few words should be said about the people, the country they live in, and their way of life. During the period of field-work, five bands or parts thereof gathered at the southern end of Lake Mistassini for the short summer season. These included the Chibougamau, the Neoskweskau, the Nemiscau, the Nichicun, and the Mistassini. No figures exist as to exactly how many Mistassini proper there were, but the total population in 1952 of all bands was 646.¹ These Indians exploited a territory of approximately 42,500 square miles, a density of one person for each 66 square miles. Few other areas in the world are so sparsely populated.

The country inhabited by the Mistassini is a part of the eastern Canadian subarctic (Map 1). The climate is continental with long, cold winters and short, rather warm, and, at times, hot summers. Snowfall is quite heavy. The land is relatively flat and blanketed with a mantle of glacial debris with outcroppings of Precambrian rocks showing through here and there. The area is covered by forest composed primarily of black spruce, although other trees and shrubs such as poplar, white birch, larch, Banksian pine, white spruce, alders, and willows occur throughout in limited numbers. Cedars are found only in the southern part of the area. None of the trees grow very large. There are numerous lakes, streams, and areas of muskeg interspersed throughout the entire region forming an interlocking network. The country of the Mistassini is one of the least productive to be found anywhere in the world. Faunal resources are meagre. Mammals consist of caribou, moose (recent), bear, and beaver. These are prime food sources. Smaller game includes fox, otter, porcupine, hare, mink, ermine, and marten. Birds are numerous but not the larger species. The more important ones are loons, ducks, geese, ptarmigan, Spruce Grouse, and owls. Fish are limited to sturgeon (in the western part of the area), pike, walleyed pike, whitefish, lake trout, suckers, and burbot. Vegetal foods are practically non-existent. Although mammals and birds are few in numbers and are widely dispersed, they still formed the basis of the Mistassini's livelihood at the time of our field-work.

The Mistassini Indians and their neighbours lived by hunting, trapping, and fishing. There was little gathering of vegetal foods and only sporadic attempts were made to raise a few potatoes. This latter endeavour is a recent development. Occasionally, wage work has been available to supplement their income. Trapping of fur-bearers has been essential to their livelihood, providing the furs necessary for exchange for Euro-Canadian products. Euro-Canadian products had, by the time of field-work, become an integral part of their way of life; without them the existing density of population could not have been maintained. Still, the Mistassini obtained directly from the environment a large part of the goods utilized in the course of any one year in the

¹This figure was supplied through the courtesy of Mr. Wilfrid Jefferys, Manager, Hudson's Bay Company, Northwest River, Labrador, who at the time of field-work was stationed at Mistassini.

form of food and of materials for the manufacture of items of material culture. The Mistassini considered themselves, first and foremost, big game hunters and prided themselves on their ability to conduct such pursuits. Big game animals were eagerly sought, although smaller animals were also taken. These latter, however meagre in quantity, were of the greatest importance for survival. Fishing, while engaged in throughout practically the entire year, was of less importance in the eyes of the Mistassini than hunting, although it did provide significant amounts of food for their dogs and supplementary rations for their own consumption in times of scarcity of other food.



MAP 1. The Area of Lake Mistassini.

In order to exploit these resources, the Mistassini Indians left the summer encampment at the season's end and travelled by canoe in groups of several families, or hunting groups, to their winter hunting grounds. The groups consisted of ten to twenty individuals, rarely more. In this environment they spent the long winter months searching for food animals and fur-bearers, periodically moving camp by means of toboggans and sleds to more productive sections of their territory. With the arrival of spring the hunting groups re-assembled at the summer encampment at the southern end of Lake Mistassini. Accordingly, the Mistassini can be envisaged as migrating between two centres of occupancy, the summer encampment and the winter hunting camps. This mobility and their rather meagre income influenced to a certain extent the nature of the material items possessed by the people.

It must constantly be borne in mind that, to the Mistassini, success in maintaining life is as dependent on the proper observances of their religious beliefs as it is on the practical means of capturing game for food. Their religion is intimately connected with the food quest, although not so much as it used to be. Various observances must be adhered to in order not to offend the game. The bear perhaps stands paramount in this respect. And from this it arises that certain items of material culture, such as the *nimapan*, have become imbued with religious significance, and their manufacture and decoration are often prompted by a dream or by success in the hunt. Although the major emphasis in this paper is on those items of material culture that the Mistassini themselves produced, mention must also be made of the articles acquired through trade. The fur trade and Euro-Canadian products have played an important role in their lives, altering it in certain respects. Without such mention a very distorted picture of their material culture would result, and the changes that have occurred would not bear examination.

The Mistassini, living as they did, had three main problems to face: keeping warm during the long, cold winter months; securing enough food in a poverty-stricken area; and possessing the necessary means of travel whereby this vast area could be effectively exploited. Given the technological level as it existed and the limited economic or monetary potential at their command, the Mistassini met these problems with considerable ingenuity. The limited economic or monetary potential is perhaps today the most important factor of the two. Theoretically, they had as of 1953-54 the entire technological knowledge of Euro-Canadian society at their command, but because of their cultural traditions, which at times prevented them from taking full advantage of this fact, and because of low income level, they were often unable to secure much that the Euro-Canadians had to offer. Accordingly, they had to fall back on their own technological competence. An example may make the above clear: Transportation is of vital importance, given a trapping economy in such an environmentally unproductive region. Air transport would enable the trappers to easily and quickly carry out their trapping operations; yet they have neither the money to hire aircraft nor the requisite skills to operate their own planes, even if they could afford them. Accordingly they must use sleds and toboggans. Never having established any form of local industrial production, as, for instance, have the Rupert's House Indians for canoes

(Greenlees, 1954, p. 46-49), they manufacture their own sleds and toboggans as a household craft.

Although food, shelter, and mobility are of primary concern, religion and recreation are also of importance in the lives of the people. Formerly, religion was much more closely allied with and integrated into the economic system, and even to this day it still plays its part in giving security to economic pursuits. The introduction of Christianity has added a new dimension to the picture.

Any cultural assemblage tends to form a more or less unified and integrated whole and makes separation into component parts difficult. But for purposes of description, categories of some form are necessary. With material culture this task is perhaps somewhat easier than with other aspects of culture. The following categories have been utilized to describe the material culture of the Mistassini Indians: 1) The Camp; 2) Utensils, Containers, and Tools; 3) Clothing, Bedding, and Personal Adornment; 4) Equipment for Securing Native Foods and Furs; 5) Travel and Transportation; and 6) Recreation and Amusements. It will be noted that there is no category for religious paraphernalia since only a few such articles existed. Several reasons account for this dearth of equipment. First, much of their religion, both native and introduced, is simply not expressed in terms of objects, but rather it is a body of beliefs and doctrines to guide man in his daily life. Then again, there have been losses of certain esoteric items such as the rattle, which is now an infant's toy, either through their complete disappearance or through their having become secularized. The few religious items that do exist are placed in other categories: the *nimapan* or ceremonial carrying string under 'Travel and Transportation'; the shaking tent under 'The Camp'; bear chin skin pouch under 'Utensils, Containers, and Tools'; ceremonial hide under 'Camp Equipment'; and the drum under 'Recreation and Amusements.' Finally, although decorative devices such as the plaques on the toboggans have their religious meanings, they have been described along with the objects associated with them. Practically nothing is said in this report regarding the religious system of the Mistassini since it has already been so well covered by Speck (1935) for the southern Montagnais-Naskapi including the Mistassini.

In most instances, all items discussed in the following account were still being manufactured and used by the Mistassini in 1953-54. In some cases, certain items of material culture were going out of favour and were rarely used. Others were no longer made and were only a memory in the minds of the people, generally the elders; but they are, none the less, considered part of the existing mental culture of the Mistassini. It is not always possible to state with confidence whether an item is still in use. To do this a large number of people would have had to be interviewed, and this was impossible. In Appendix A, a table is presented showing whether the data were secured by direct observation or whether the information was obtained from informants; whether the item was common, rare, or no longer in use; and whether it was of native manufacture.

The data presented here were for the most part collected from members of the Alfie Matoush hunting group during the course of the winter spent with them on their lands near the headwaters of the Eastmain River. Much of the

detail was acquired by direct observation. During the two summers spent at the encampment at the south end of Lake Mistassini, these data were checked and supplemented through talks with William Scharles, who came from the southern part of the Mistassini territory.

CHAPTER TWO

The Camp

INTRODUCTION

Throughout the course of the year, the Mistassini Indians were frequently on the move. Their habitations, furnishings, and camp equipment were in large measure adapted to the conditions of mobility. Shelters were portable or else were easily constructed from materials readily available on the spot; household belongings were few in number, and camp equipment was made when needed and afterwards abandoned. The Mistassini were not truly nomadic, but, rather, each hunting group had two residential centres. One was at the summer encampment on the southern end of Lake Mistassini (Map 1), and the other was located within the confines of the trapping territory. The camp at the trapping territory was generally erected at a different location each year. Accordingly, the Mistassini can be seen as migrating between these two centres: in the late summer moving to the winter camp in the interior and in late spring returning to the summer encampment (*See Rogers and Rogers, 1959, p. 130-138*). The summer encampment, situated on rising ground at the northeast corner of Post Bay, Lake Mistassini, consisted of about one hundred homes: some canvas tents, a few log cabins, and occasionally a dome-shaped lodge (Map 2). These residences clustered about the church, the school, and the traders' establishments. The winter camps, on the other hand, were small, containing only from one to three lodges as a rule (Map 3). Each shelter was furnished with basic equipment such as stoves, dishes, tools, and bedding, and the camp was equipped with such items as cache racks and drying racks. Generally the interiors of the lodges were kept clean, but little care was taken of the camp surroundings, except at the summer encampment.

SHELTERS

Several types of shelters were built. These included the conical lodge, the dome-shaped lodge, the earth-covered conical lodge, the communal lodges (*inImicUwahp* and *sapUhtAwan*), tents, log cabins, and temporary shelters of several types.

The size of the lodges varied. Some were large, housing several families; others were built for only one family. Still others varied in size depending on whether they were to be occupied by one or more families. The *inImicUwahp* and *sapUhtAwan* were strictly communal dwellings and accordingly were rather large. The former was occupied by two families and the latter by three or more. Generally, the conical lodge, the earth-covered conical lodge, and the tents were smaller and were occupied by only one family. The other forms, excluding temporary shelters, ranged from small to large. Temporary shelters, primarily used by the men when hunting, were constructed to accommodate one or more hunters.



MAP 2. Summer Encampment at Lake Mistassini.

Some lodges appear to have been employed only during a particular season. In general, considerable latitude was observed. During the winter, when the groups were in search of big game, the *inImicUwahp* and *sapUhtAwan* seem in the past to have been the most prevalent types of lodge for 'permanent' base camps. Today tents are generally used. But when a large amount of meat is to be dried, one of these communal lodges may be erected; in the late winter of 1953-54 the Matoush group killed a large number of caribou and built an *inImicUwahp*.

A family living in the northern half of the Mistassini territory claimed that the dome-shaped lodge was not employed during the winter. This was because the necessary poles were 'frozen,' and therefore it was impossible to bend them. On the other hand, an informant from the southern part of the territory said that this type of shelter was used in winter, but first the poles were thawed by a fire.

The earth-covered conical lodge was not employed during the winter because of the difficulty of obtaining moss and dirt for covering. During the summer, the dome-shaped lodge was used and undoubtedly the conical lodge also was. Occasionally communal lodges may have been erected. In 1953-54 one-family dwellings were the rule, consisting of log cabins and tents. In late fall and early winter, when permanent camps were occupied, earth-covered conical lodges, dome-shaped lodges, and log cabins were built. The last two were generally constructed large enough to house the entire hunting group. This may also have been true of the earth-covered conical lodge, although evidence is lacking. Formerly, the conical lodge was probably employed whenever the groups were travelling. Today, canvas tents have replaced the previous form or forms.

Camp-sites were selected near water, generally a stream or a lake. Occasionally, they might be located near a spring to one side of a portage trail. When a party was travelling at any time of the year except winter, old camp-sites were usually chosen since less labour was involved than in preparing a new one. This was also true during the early fall and spring when base camps were erected. These camp-sites were, as a rule, located within thirty to one hundred feet of the shore. During winter, starting with the establishment of a base winter camp and lasting until about the time of break-up, locations not recently used for camping were selected for both base and travel camps. Rarely did a group return to its early winter base camp. If it did, it was usually for the following year only. This preference for new sites was due primarily to the fact that easily available supplies of firewood and boughs had been previously exhausted.

Camps established when a party was travelling during winter were generally at no greater distance from the shore than during other times of the year. Base camps, on the other hand, were located from one to two hundred yards from the shore. This was especially true during December, January, and February when the weather was coldest and when strong westerly to northerly winds were apt to blow. For this reason, not only were the camps established well back from shore, but sheltered locations were sought, such as the base of a hill or a thick stand of trees, preferably both. Because of the prevailing direction of the coldest winds, the western shores of lakes were most often

chosen. If the camp-site was established on an eastern shore, it was usually placed farther back from the lake than on a western shore.

Lodges at base camps and the summer encampment were generally oriented with the entrance facing approximately southeast. This was true even though the camp-site was situated on the southeast shore of a river or lake. Shelters erected when the group was travelling did not adhere to this orientation. Instead, the entrance generally faced the shore of a river or lake, although it was considered 'bad' if at any time the entrance faced west. Nevertheless, a few lodges are today erected with this orientation.

inImicUwahp

The *inImicUwahp* (Plate IA) was a communal dwelling with an approximately elliptical floor plan. The sides of the ground plan were straight; the ends were rounded. One *inImicUwahp* observed was about 16 feet wide and 18 feet long. The ridge pole was twelve feet above the floor.

Before an *inImicUwahp* was erected, the snow was removed from an area conforming to the ground plan of the intended structure and piled about the edge of the excavated area. The surface of the ground within the excavation was levelled as much as feasible. The foundation of the lodge consisted of two A-frames (Figure 2) joined by a ridge pole. Rope was employed to hold the pieces in place. The two A-frames were erected about eight feet apart, parallel to one another and at right angles to the long axis of the lodge. The crotch of each frame was about twelve feet above the ground. The butts of the poles were placed in the edges of the excavation approximately sixteen feet apart. The ridge pole rested in the crotches of the two A-frames and extended several feet beyond them at either end. Against this foundation, smaller poles were laid. These were placed about a foot apart around the circumference of the lodge at the edge of the excavation. In the *inImicUwahp* examined, there were seven poles on either side, fifteen at the rear, and fourteen at the front.¹ All poles employed in the frame were unpeeled black spruce from which the branches had been removed. The A-frame poles were 7 to 8 inches in diameter at the butt; the other poles were 5 to 6 inches in diameter.

Formerly, the lodge was covered with softened but unsmoked caribou hides, which were sewn together to form several strips. These were placed horizontally about the frame and held in position with poles. Presumably, birchbark was also employed, especially by the southern Mistassini. The lodge observed was canvas-covered. Several poles were placed against the outside to hold the canvas more securely in place. The bottom edges were banked with snow.

A door was located at one narrow end of the lodge. It was 2½ to 3 feet wide and 6 to 7 feet high. A door sill was constructed of three logs. These were placed horizontally just inside the frame against the wall of snow, one on top of another. They were held in place by a post driven into the ground near either end of the sill and on the inside of the lodge. Boughs were placed on either side of the doorway to a height of about three feet. These were held in position with posts thrust into the floor. The tops of the posts were tied to poles in the lodge frame. The boughs prevented cold air from entering

¹It is thought by the Mistassini to be bad luck to count tent poles.

about the sides of the door, which was closed with a rectangular piece of canvas.

Boughs were placed on the ground and against the walls of snow which might be as high as three feet. A fireplace was constructed at the centre of the lodge for drying meat. At each end of the fireplace was a stove for cooking and heating. The fireplace and stoves extended in a line along the major axis of the shelter. Formerly, two fireplaces were used. The cross-bars of the A-frame supported a drying rack of small poles. Shelves were built about the sides of the lodge at the top of the wall of snow.



FIGURE 1. Foundation for Dome-shaped Lodge.

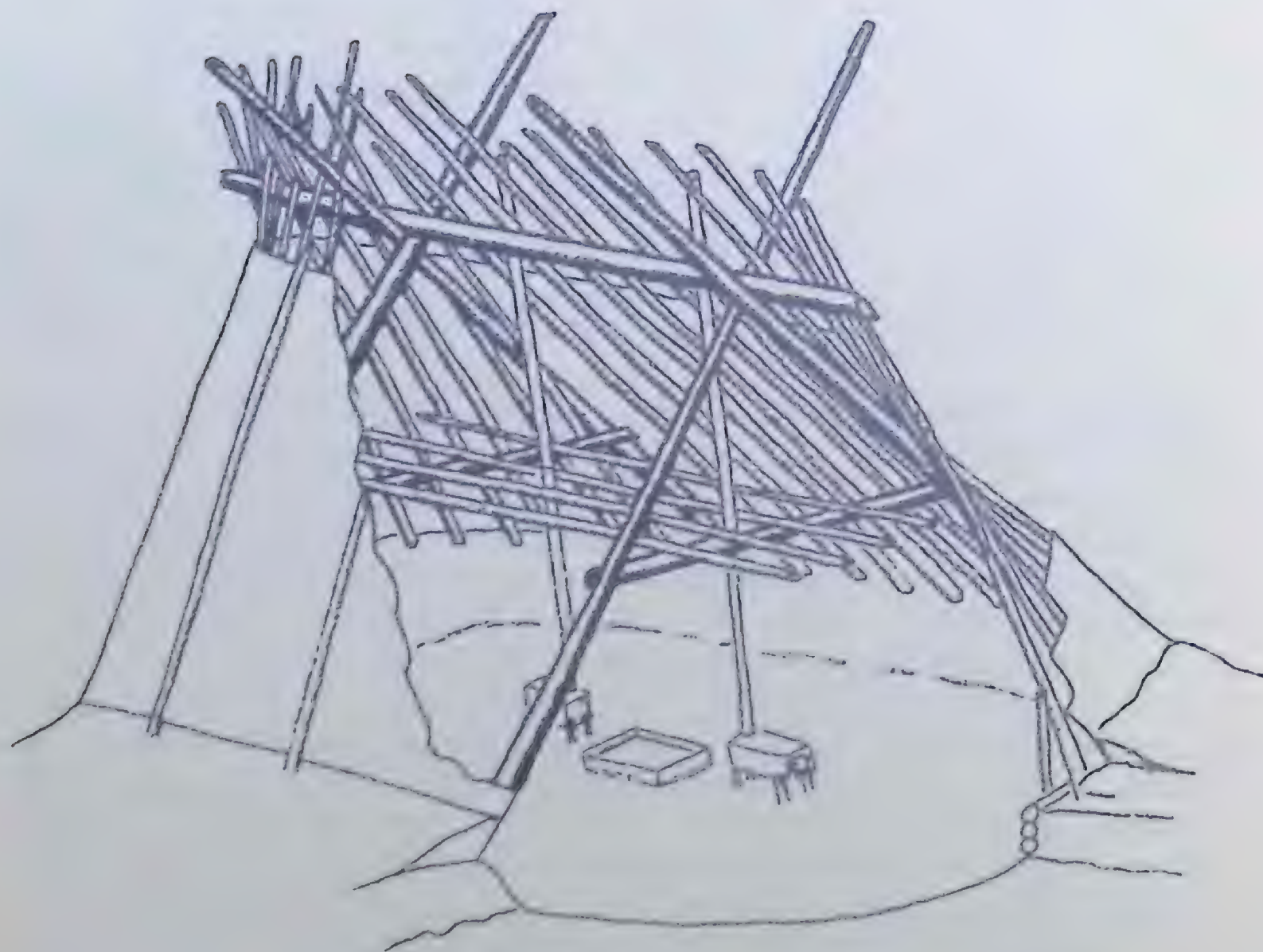


FIGURE 2. *inImicUwahp*.

sapUhtAwan

The *sapUhtAwan* was said to be similar in construction to the *inImicUwahp*. It was approximately twice the length of the latter and had a door at either end. Three stoves or fireplaces were erected in a line down the centre. In the past, the *sapUhtAwan* was covered with unsmoked caribou skins and probably birchbark.

Conical Lodge

This structure, as described by informants, was circular in ground plan. The foundation consisted of four poles. First, two poles were tied together near their tops. One pole might have a crotch near the top, in which case the poles were not tied together. Instead, the end of the uncrotched pole rested in the crotch of the other. The butts of the two poles were then spread apart, and the poles were lifted into position. They were held erect by two poles, placed one on either side and in a leaning position against the apex. Against this four-pole foundation more poles were placed in a leaning position. The lodge was covered with either hides or bark sewn together into strips. The strips were placed horizontally about the frame and held with poles placed on the outside.

When a lodge was built during the winter, the snow was first excavated to ground level. Then the frame was constructed with the butts of the poles inserted in the edge of the snow surrounding the excavation. This was probably the technique when a base camp was established. Presumably, for travel camps the lodge was placed on top of the snow, as is the case today with tents.

Earth-Covered Conical Lodge

The ruin of an earth-covered conical lodge built about thirty-five years ago was seen on the shores of Lake Indicator at the headwaters of the Temiscamie River. The floor plan was elliptical in outline, approximately 18 by 14 feet. The ground was excavated to a depth of about one foot, and the earth was piled about the rim of the excavation to a height of approximately one foot. Poles, about 4 to 6 inches in diameter and occasionally split lengthwise, were erected in the form of a cone and fitted tightly to one another. The peak was estimated to be twelve feet or more above the floor. The butts of the poles were embedded in the loose earth at the rim of the excavation.

According to an individual (Alfie Matoush) who had lived in this lodge, it was chinked with moss and covered with earth to a height of approximately five feet. The upper half, except the smoke hole at the apex, was covered with canvas. A fireplace was constructed at the centre. In addition, a stove was placed near the door. The floor was thickly covered with boughs.

This lodge had a passage extending from the doorway. It was approximately 14 feet long and 8 feet wide. The ground within the passage was not excavated. The sides consisted of low log walls. The front was open. A ridge pole, supported by two vertical posts, extended the length of the passage. It was roofed with tarpaulins.

When trees were plentiful near the site of a proposed lodge, the passage was often constructed of unsplit logs laid horizontally. When trees were scarce, the walls were made of split logs placed vertically (See Rogers, 1963, p. 219-227).

Dome-Shaped Lodge

Shelters of this type (Plate IB) were of varying sizes, depending on their function. According to the data available, the basic construction varied slightly for each size. Large ones were used as habitations for from one to four families. Smaller ones were sometimes erected during the summer for protection against the sun. Even smaller ones were employed as sweat lodges for either medicinal purposes or divination.

One uninhabited dome-shaped lodge (Figure 1) was observed at the summer encampment. This had probably been occupied by one family. The floor plan was roughly circular. It had an eight-pole foundation which consisted of two pairs of parallel arches, transverse to each other. Each arch was formed by tying the ends of two poles together. The butts were thrust into the ground. Other poles were placed about the circumference and bent under the foundation. Some of the poles were of birch, and others appeared to be of black spruce. This frame had a diameter of approximately 12 feet and a height of about 7 feet. Larger dome-shaped lodges were reinforced with a pair of poles, bent and placed horizontally about the inside circumference of the frame. The poles of this pair were several feet apart and were located about halfway up the side of the frame. They did not cross the opening left for the doorway. Formerly, lodges were covered with birchbark. Today, they are covered with canvas.

In summer, sun shades were constructed of birch and alder saplings. One shade observed was made with fourteen poles. Two poles were placed in the ground about 7 feet apart. They were then arched, and the free ends were tied together over the centre of the lodge. At 90 degrees to these poles, another pair was similarly erected. Then more poles were thrust into the ground about the circumference and bent under the first four. The floor plan was approximately 7 feet in diameter. Canvas was stretched over the top of the frame to shield the occupants from the sun.

Sweat lodges were constructed of small black spruce poles about one inch in diameter. In this case, the end of each pole was thrust into the ground to form a circular enclosure. The free ends of the poles were then bent to form a small dome-shaped lodge. The frame was covered with canvas.

Tents

Recently, tents have become the most common form of shelter. They appear in part to have been modelled after aboriginal types of lodges. Techniques of erection were derived directly from former practices, with minor modifications.

Tents were made by the women from cotton duck canvas obtained from the stores. Two women, working together and using hand-operated sewing machines, could manufacture an average-sized tent in approximately five hours. After the tent was finished, it was generally soaked in water for a day before it was used. This was done so that the *linters* on the surface would become matted, thus preventing the canvas from burning readily if a spark fell on the tent roof.

Tents were dried before being struck and packed for transport. The bottom edges were freed, and a fire was built at the centre of the lodge. Sometimes, the stove was stoked, or it might be emptied on the floor and more fuel added.

In any case, the occupants moved outside and closed the tent securely. The tent was dried to reduce the weight, to prevent it from becoming mouldy, and in winter to keep it from freezing.

Tents were made in two styles. One, infrequently employed at present, had a roughly elliptical ground plan, as in the *inImicUwahp*. It had a gabled roof and low walls. Each end was made of triangular pieces fitted together. The ends, instead of being vertical, as in the second style, sloped from the ends of the ridge to form half cones. The bottoms of the end pieces joined a low wall which was a continuation of the side walls. Tentatively, it is suggested that this style of tent was modelled after the *inImicUwahp*.

The second style, which was the one most commonly employed, had a rectangular or square floor plan, low side walls, vertical ends, and a ridge extending the length of the tent. At one gable end, the canvas was in two halves, divided vertically from the peak. This served as a doorway. A canvas sleeve was attached at either end of the ridge on the outside. These opened into the inside of the tent and were for the insertion of a ridge pole. Strings were attached at intervals along the eaves at the sides. The tents varied in size. Some had a floor plan as small as approximately 6 by 7 feet and a wall height of 4½ feet. Others were as large as 12 feet square with a wall height of about 6 feet.

Tents were erected in a variety of ways, depending on the time of year and on whether the camp was a base camp or a temporary one. There were two ways of erecting a tent when a group was travelling. One method was used during the winter, and the other during the spring, summer, and fall. For a base camp, there were four methods of erecting tents. One was employed during the winter, another during late spring and early fall, one during early spring at the time of the thaw, and a fourth was used at the summer encampment. In addition to these, occasionally a communal shelter was erected by placing two tents, end to end.

During spring, summer, and fall travel, tents were erected with a minimum of labour. First, two posts were thrust into the ground. Next, a ridge pole was inserted through the sleeves of the tent at the roof peaks and attached near the tops of the poles. The poles remained outside the tent. Stakes were now forced or pounded into the ground along either side and opposite the points at which the strings were attached to the eaves. The strings were then drawn tight and secured to the stakes. This pulled the roof and sides into position. The bottom edges of the tent were held in place with logs and stones. These were laid along the edges on the inside. Occasionally, the front was enlarged. When this was done, poles were erected vertically across the front of the tent in an arc and were bent into the tent so that their tips were held by the roof. The halves forming the front of the tent were pulled around the outside of the poles. The opening left at the centre served as a doorway. A special piece of canvas, slightly larger than the opening, was generally used as a door. On either side of the piece and approximately a third of the way from the bottom there were small pockets. A stick, the width of the canvas door, was cut, and the ends were inserted in the pockets. The weight of the stick usually prevented the door from blowing open and also ensured that the door would fall into place after it was opened. The canvas was sometimes

sparsely decorated with coloured bias binding. Occasionally, a tarpaulin was used as a temporary door.

When erecting a tent during winter travel, the snow was first trampled and at the same time broken down with a snowshovel. This was done over an area somewhat larger than the floor plan of the tent to be erected. The snow was then levelled and firmly packed by stamping with snowshoes. Small trees were removed at ground level wherever necessary. Next, spruce saplings were collected. The branches were removed and placed on the packed snow to form a thick bed. The tent was then erected. The ridge pole was supported by a pole at the front and back of the tent. Generally, a crotched pole was selected for the front. When this was the case, it was placed just inside the tent and formed one side of the doorway. The sides of the tent were pulled out and tied to stakes thrust into the snow. Inside the tent against the walls, sticks were set vertically in the snow. These held the walls in place after the tent was banked with snow. The door was located at one side of the central post at the front end of the tent. A door sill was built just inside the doorway. This was composed of several logs laid horizontally, one on another, and held in place with stakes. Finally, the tent was banked with snow.

The tents used by the men when trapping and hunting were erected in exactly the same way as the winter travel tents. The tent employed was, however, usually smaller. When it was to be left unoccupied for some time, it was reinforced inside with arched poles. This prevented the structure from collapsing under the weight of accumulating snow.

Tents used during early fall and late spring at permanent base camps were erected in substantially the same manner as the fall travel tents. There were several minor variations. The front end of the ridge pole was sometimes supported by a horizontal instead of a vertical pole. The horizontal pole was secured to two vertical poles placed near the front corners of the tent. Quite commonly the front of the tent was enlarged as in the fall travel tent. The bottom edges of the tent were securely anchored. To do this, stakes were driven into the ground at intervals along the walls on the inside. The bottom edges were attached to the stakes with string. Logs were then placed between the stakes and the walls of the tent. During late spring, a door sill of one or two logs was constructed.

When a base tent was erected during the winter, the levelness of the ground was first ascertained. This was done by inserting the handle of a snowshovel into the snow a number of times at various points. In this way, depressions were located, even though the surface of the snow was level. Next, the snow was trampled and at the same time broken down with a snowshovel in an area somewhat larger than the floor plan of the proposed tent. Following this, the snow was removed to ground level from a space slightly smaller than the floor plan of the tent. Any prominent hummocks were removed. Enough snow was left to fill in any hollows. Next, twenty to forty black spruce saplings were collected. The number depended upon the size of the tent. The branches were removed and strewn on the ground to form a thick bed. No care was taken in placing them except to see that a fairly level surface resulted. The trunks of the saplings were saved for future use. Next the tent was erected. It was raised higher than usual so that the bottom edges just cleared the rim

of the excavation. The ridge pole was supported by a single pole at the rear, and in front it was held by either a single crotched pole or a horizontal pole. If a crotched pole was used, it was placed just inside the tent to form one side of the doorway. The horizontal pole was erected in the same manner as at the fall base camp. The sides of the tent and the roof were held in place as previously described. Inside the tent, small spruce trunks were placed vertically in the ledge of snow which extended under the bottom edge of the tent. The poles provided support against the weight of the banked snow. Next, boughs were laid on the floor and against the low snow wall. Then the sides of the tent were banked. The front was enlarged, and a door sill of several logs was placed just inside the doorway.

Frequently, the sticks which were placed inside the tent against the walls collapsed under the weight of the banked snow. If this happened, reinforcing was added. Horizontal poles were placed along the inside of the sticks the length of the sides and back wall at a height of approximately three feet. The poles were tied to each other and to the sticks at the four corners and were nailed to reinforcing poles at either side of the door.

Occasionally, the roof was tightened to prevent it from flapping in the wind. Two poles were tied together at their small ends. They were then bent to form an arc, which was roughly the height and width of the tent. This was placed inside the tent near the rear. Another pair of poles was prepared in the same way and placed near the front of the tent. The arched poles were large enough to expand the tent roof until it was taut.

Sometimes a passage was built which extended from the doorway. The sides were constructed of split logs placed vertically. Openings were closed with spruce branches. The roof was of canvas supported by a ridge pole.

During the period in spring when the snow was thawing, a third method of erecting a permanent tent was employed. The snow was removed to ground level from an area slightly larger than the floor plan of the tent. Spruce saplings were then collected and stripped of their branches, which were used to form a thick bed on the ground. Next, the tent was erected. The ridge pole was supported by a single pole at the back of the tent and a horizontal pole in front. Outside, on either side of the tent and parallel to the walls, a long pole was tied to several posts or tree trunks. The eaves of the tent were then tied to the poles. (This method was occasionally used for fall and late spring tents.) Sticks were thrust vertically into the ground about the periphery of the tent on the inside. Horizontal poles were placed inside as additional reinforcement, similar to that sometimes employed in the permanent winter tents. The tent was then banked with snow. A door sill of several logs was constructed, and boughs were laid on the floor.

As the snow melted away from the sides of the tent, spruce branches were inserted between the tent wall and the receding snow; then the tent was banked with more snow. This process was repeated whenever necessary.

Tents for permanent use during the summer were generally erected on special frames. All logs and poles used were peeled. Four corner posts, flattened on two adjacent sides, were placed vertically at the corners of the proposed frame and extended four to six feet above the ground. Between the posts, log walls were erected. Each wall consisted of five or six logs laid

horizontally and abutting the inside flattened surfaces of the corner posts. Occasionally, the logs were split in half. Stringers were attached to the tops of the corner posts and studs inserted. Then, poles were erected at the centre of the back and front walls. These supported a ridge pole at a height of seven to eight feet. Rafters were nailed to the ridge pole and side stringers. A doorway was constructed at one end of the frame, generally just to the left of the centre pole which supported the ridge. The top logs were sawn through, and the section for the doorway was removed. A sill, 2 to 3 feet high, consisting of several logs was left. The tent was fitted over the frame. The sides of the tent were generally tied to nails driven into the frame. This was done so that the sides could be raised during hot weather. Often, a wooden floor was laid and a wooden door was added.

Another form of frame, less commonly employed, lacked the log walls; otherwise it was quite similar. Sometimes no permanent frame was built. The ridge pole was supported on a single pole at the back of the tent and a horizontal pole in front. The bottom edges were held in place with logs.

Occasionally two tents were joined to form a communal dwelling. These were placed front end to front end, and the canvas partition was removed to make one large room. A door was located at the junction of the two tents on one side. Two cases of this type of shelter were recorded, both of which had been occupied during late spring.

Log Cabins

Log cabins were constructed in several ways. Some were built with log walls and a gable roof covered with canvas or boards. Others were made completely of logs and poles, with either a gable or pyramidal roof.

One communal log cabin with log walls and a canvas roof was observed during construction at the early winter camp of the Alfie Matoush hunting group (Plate III). The site was carefully selected for the shelter it offered from winter winds, for proximity of boughs and firewood, and for levelness of terrain. The ground plan was approximately 15 by 20 feet. The builders used a piece of string to take all measurements during the course of construction.

At this point, Banksian pine trees were felled, stripped of their branches, and carried to the site. The bark was not removed. Following this, the ground was cleared and levelled with a short-handled metal shovel. Stakes placed at the four corners and at the centre of the long sides were used as guides in placing the logs. Side casings were made for the doorway and were erected at the middle of one long side and held in place with poles. Next, a post was squared and set in a hole at the centre of the other long side. Logs were then laid on the ground at the short sides, and notches were cut on the upper surface at either end of the logs. After this was done, the logs were placed along the long sides, one end of each timber resting in a notch cut in the end logs, the other end abutting the centre post and door casing. Wooden blocks were placed between the ground and the ends of the logs to level the latter. The logs were then nailed to the posts and casings. Notches were cut in the top side of these timbers at the points where they interlocked with the end logs. Another log was then placed the length of each end. Sphagnum moss was often used to fill the notches at the four corners to ensure a snug fit. After

several logs were erected, the inside faces were flattened with an axe, and the work was continued until the walls were completed. Each wall, composed of nine logs, was 5½ feet high.

After the walls were finished, poles of black spruce were obtained for the superstructure and stripped of their bark. Two ridge-pole support posts were erected at the centre of each end on the outside of the walls. The top of each was either notched or ended in a natural crotch. Next the ridge pole was added, and following this, end rafters were nailed in position and then additional rafters, the work progressing from each end toward the centre of the structure. After this, canvas was stretched over the ridge pole and rafters and nailed to the upper wall logs; separate pieces of canvas covered the gable ends. The ridge pole was approximately 10 feet high. The walls were then chinked with sphagnum, forced in between the logs with a stick cut in the form of a blunt wedge. Next, the lower portion of the walls was banked with sand and earth to a height of several feet. A canvas door similar to that described for fall tents was hung over the doorway.

A passage was built extending from the doorway. First, a pole frame was erected, and each side was then enclosed with split logs placed on end and in a leaning position against the frame. Next, a ridge pole was lifted into place at right angles to the plane of the door, and rafters were attached.

Two large stoves were placed in a line at the centre of the lodge and parallel to the short walls. In extremely cold weather a small stove was added and placed alongside the large ones.

This particular lodge was occupied by the Matoush hunting group, comprising thirteen individuals. Larger cabins of similar construction were used when there were more than two families.

A few log cabins were in existence at the summer encampment. They had walls of peeled logs, which did not interlock at the corners. Rather, corner posts were erected between which the logs extended, similarly to the frames often constructed for tents at the summer encampment. The gable roof was either of boards covered with tar paper or of canvas. These summer dwellings were generally built with several windows and a wooden floor. There was a door under one gable, and a step or porch, usually without a roof, was built at the entrance.

Another form of log cabin, of which one example was seen, consisted of log walls and a gable roof made of poles. The log walls interlocked at the four corners. There was a small window at the rear and a small door at the front. Across the top of the walls, poles were laid horizontally. They were chinked with moss and then covered with a layer of sand. The moss prevented the sand from sifting through into the room below. A king post, placed at either end, supported the ridge pole. Small poles were used for the roof. These were attached at the top of the walls and the ridge pole, in the same direction as the rafters. A small amount of moss was used to chink the roof. The gables, which were never enclosed, allowed free circulation of cold air to keep the snow from melting.

The cabin observed was quite small. The floor plan was approximately 6 by 6 feet. Inside, the distance from the ground to the ceiling was not much

more than 4 or 5 feet. The ridge pole was perhaps 6 or 7 feet above the ground. The floor was slightly excavated.

A second variety of cabin had the same interlocking log walls, but it had a pyramidal roof. The roof was supported on four rafters which extended from the top of each corner of the walls to join at a point directly over the centre of the floor. The roof consisted of split poles which ran from the tops of the walls to the apex of the rafters. The floor was excavated approximately one foot. A door occupied the centre of one wall, from which a passage extended. The sides of the passage were enclosed with vertical poles.

Emergency Shelters

When expediency dictated, several varieties of temporary shelters were utilized. The simplest consisted of an overturned canoe. Another variety was a small shelter of bent poles and canvas. One was observed during the fall hunt of 1953. A small, roughly rectangular area of ground was levelled. Two black spruce poles were then erected at one edge of the area, approximately four feet apart. These were bent, and their ends were tied together, forming an entrance about 3 feet high. A third pole was placed in the ground about six feet from this pair, at the rear of the shelter. This pole was arched, and the end was inserted under the tie of the first two poles. It acted as a ridge pole. From the first two poles to the rear pole, additional poles, spaced approximately 1½ feet apart, were erected. These were bent, and their ends were inserted under the ridge pole. Next, the frame was covered with tarpaulins, and finally earth was banked about the sides and the boughs were placed inside for flooring.

There were two methods of erecting emergency shelters during winter. In one, the snow was first cleared from a small area which was then covered with boughs. Two forked sticks were erected at opposite sides of the prepared area, possibly as much as nine feet apart, depending on the desired size of the structure. The forked poles supported a horizontal ridge pole. Untrimmed spruce saplings were leaned against the ridge pole along one side and about the ends to form a wall. Most of the other side was left open. Many saplings were used to give protection from the cold, and snow was banked about their bases.

The shelter was erected facing a large boulder or bank. Between the boulder or bank and the open front of the shelter, a fire was built. The bank or rock reflected heat back into the interior of the shelter.

A second type of shelter was made with untrimmed spruce saplings but without a frame. A circular area was first cleared in the snow, and saplings were thrust into the rim of the clearing at such an angle that a conical shelter resulted. One side was left open and faced a fire. The sides were banked with snow.

Shaking Tent

Although the 'shaking tent' is not a habitation, its description is placed here for convenience, as was pointed out in the Introduction. The shaking tent rite was performed for at least two reasons. One was to destroy the *wihtlko*, and the other was to determine the results of future hunting. Only 'old men' (possibly shamans) knew how to perform the rite. One informant claimed

that formerly women knew how to perform it, but this statement could not be confirmed. This was apparently the case at the time of contact among the Indians at Three Rivers, Quebec, to the south (Thwaites, 1896-1901, IX, p. 113).

The 'tent' was constructed of six poles, each about 1½ inches in diameter and from 7 to 8 feet long. One pole was of larch, two were of birch, and three were of black spruce. An informant stated that black spruce was used because the Spruce Grouse fed on this tree; the birch because rabbits and 'moose' (?) fed on it; and larch because in summer it was the same as spruce, having needles at that time of year, and 'partridge' fed on it.

The poles were placed upright in the ground in the form of a circle with a diameter of several feet. They converged slightly at the top. A birch pole was placed on either side of the larch pole. The three spruce poles completed the circle. Several inches below the top and on the outside of the poles, a hoop was placed. A second hoop was placed on the outside of the frame, about halfway between the top and the ground, and the poles were tied to these hoops with roots. Formerly, the 'tent' was covered with bark and probably also hide, but today canvas is used. The top was left open. The doorway or point of entrance was located between the larch and a birch pole, although it could face in any direction.

The structure was not erected by the performer; rather he delegated the task to any man present who knew how to do so. It was constructed inside the lodge in winter and outside in summer.

The performer wore no special clothing except on his head, where he wore a handkerchief (presumably of hide in the past), folded not quite in half along a diagonal line. It was placed over the top of the performer's head with the fold across his brow. The two opposite corners were tied together at the back of the head and over the third corner. The handkerchief was put on just before the performer entered the 'tent.'

SITTING AND SLEEPING ARRANGEMENTS

Inside a lodge, for purposes of sitting, sleeping, and eating, individuals were placed according to age and sex. In single family dwellings at feasts and when visiting, the men were at the rear and the women and children were along the sides. The place of honour, occupied by the eldest male member, generally the leader of the hunting group, was in the right rear if the stove was to the left. His wife occupied the right or left side depending on the position of the stove. In general, the family members slept at the rear with a separation of siblings of opposite sex who had reached puberty. In two family communal lodges, the leader and his family were on one side and the second family was on the other. The women and children were located nearest the door and the men toward the rear. Unfortunately, no data were collected as to the situation when there were more than two families.

FURNISHINGS

Under 'Furnishings' for lodges, the following are discussed: heating, light, flooring, and racks and shelves.

Heating

In the past, fireplaces were the only means of heating. A few stoves were in use twenty-five to fifty years ago; they are now common. Fireplaces were of two types. One seen in 1954 consisted of a square bed of sand which was held in place by four logs, each approximately 2½ inches in diameter. They were connected by mitre joints. The logs were held at the corners by pegs driven into the floor on the outside of the logs. Sand fireplaces were said to have been in common use from October through December.

Sometimes the fireplace consisted of a large stone on which the fire was built. This type was employed during January and February.

Recently, during early winter and occasionally during the summer, large metal 'camp' stoves were used. At other times of the year, small sheet metal stoves, obtained from the trading companies or, on occasion, made by the men, were used. The stove was about two feet long, a foot wide, and nearly a foot high. It was placed approximately eight inches above the floor, its corners resting on four wooden pegs driven into the ground. There was a door at one end. In travel camps, the tops of the pegs were flat. For permanent camps, they were more carefully prepared. A transverse cut was made an inch below the top of the peg and approximately halfway through it. The wood between the cut and the top of the peg was removed. The corners of the stove rested on the surface resulting from this transverse cut. Pegs were placed at the back of the stove near each corner, and two more pegs were placed near the front of it, one on each side. These braces prevented the stove from moving when it was tended. When camp was erected, sand or wet moss, if available, was placed inside the stove to a depth of an inch or more; lacking moss, the fire might be built on several pieces of wood.

Generally, only one stove was used in a tent. In one-family tents the stove was placed a short distance inside the door and slightly to the right of centre as seen from the doorway. The long axis of the stove was parallel to the front of the tent. In larger tents, the stove was centrally placed toward the front.

At an old tent site examined, a stove had been placed with the long axis parallel to the sides of the tent, the stove door facing the rear. At another, there were two stoves in one small tent placed on either side of the doorway.

The stove pipe, inclined at a slight angle for better draught, extended through the roof of the tent. In order to protect the canvas from the heat, a circular hole, the diameter of the stove pipe, was cut in the centre of a lid from a large lard pail. The lid was then placed over the pipe and secured with snare wire to a hole cut in the roof.

A wooden poker was used to tend the fire. This was a stick about 3 feet long with an acute, natural bend at one end 2 to 4 inches in length.

During winter travel, fires were built on top of the snow. First, an arc of spruce branches was laid down, on which to kneel when eating. On the lee side of the branches, several logs were placed, and on these the fire was built. The logs prevented the fire from settling into the snow too rapidly. Sometimes, instead of a log platform, a large rock was used. Split sticks on which food was placed to thaw were occasionally placed about the edge of the fire.

Fires were started in one of three ways: strike-a-lights, magnifying glasses,

and matches. Strike-a-lights were in use not more than fifty years ago, and today many of the Mistassini believe that the archaeological specimens found in the area are 'flints.' The 'steel' consisted of a narrow strip of metal bent into a partial ellipse. The 'flint' was a small hard stone chip. One such chip examined was a dark, fine-grained stone, probably quartzite, possibly from a quarry north of the 'Big Narrows' (Rogers and Bradley, 1950, p. 143). To start a fire a particular type of burl found on birch trees and resembling punk was employed. This smouldered but did not burst into flame. The operator slipped the metal band over several fingers of his or her right hand. The 'flint' was held in the left hand. The 'steel' was struck against the 'flint' from such a position that sparks fell on the 'punk.' Tinder was then placed on the 'punk.' The operator blew on the latter until the tinder burst into flame.

Not many years ago, when matches were scarce, a small magnifying glass was used to produce fire. The dead inner wood of birch was thoroughly dried and carried for tinder.

Recently, fires have been started with matches. Chips made from dry pieces of wood were placed in the stove or fireplace, and small pieces of wood were laid on top. The chips were then ignited. Birchbark and dead twigs of black spruce were sometimes used, instead of chips, for outdoor fires. When the wood was wet, a candle might be employed to ignite it. First, dry rotten wood was secured and placed about the flame of the candle. Then the wet wood was added.

Formerly matches were carried in small birchbark boxes. The bark was rolled into a tube and secured. A wooden disc was inserted at either end. A string was attached to one of the discs with which the latter could be removed.

When hunting, men sometimes carried a smouldering 'punk' as a slow match. The 'punk' was ignited and placed in a can before leaving camp. It was used for starting fires and lighting pipes.

During the winter, large quantities of firewood were needed. Approximately two stove-cords (two-thirds of a cord) were burned every week to heat a two-family log cabin during the coldest periods. A permanent winter tent occupied by one family, on the other hand, needed only about one-quarter of this amount. Although information and observations are limited, there is reason to believe that less wood was required when open fireplaces were used in place of stoves.

At the summer encampment, it was necessary to travel several miles or more for firewood. This was generally not the case elsewhere when it could be obtained usually in the immediate vicinity of camp. As supplies decreased, it was necessary to go farther but, as a rule, not more than a mile (Map 4).

Both men and women gathered firewood, immediate circumstances determining which sex performed the task. If the wood was relatively near camp, and the women were in good health and the men occupied elsewhere, the women did most of the work. On occasion, a man and his wife worked together.

Sound deadwood was sought, but when the supply of this diminished, green wood was utilized. Larch was considered the best and Banksian pine the poorest. Black and white spruce were intermediate in quality.

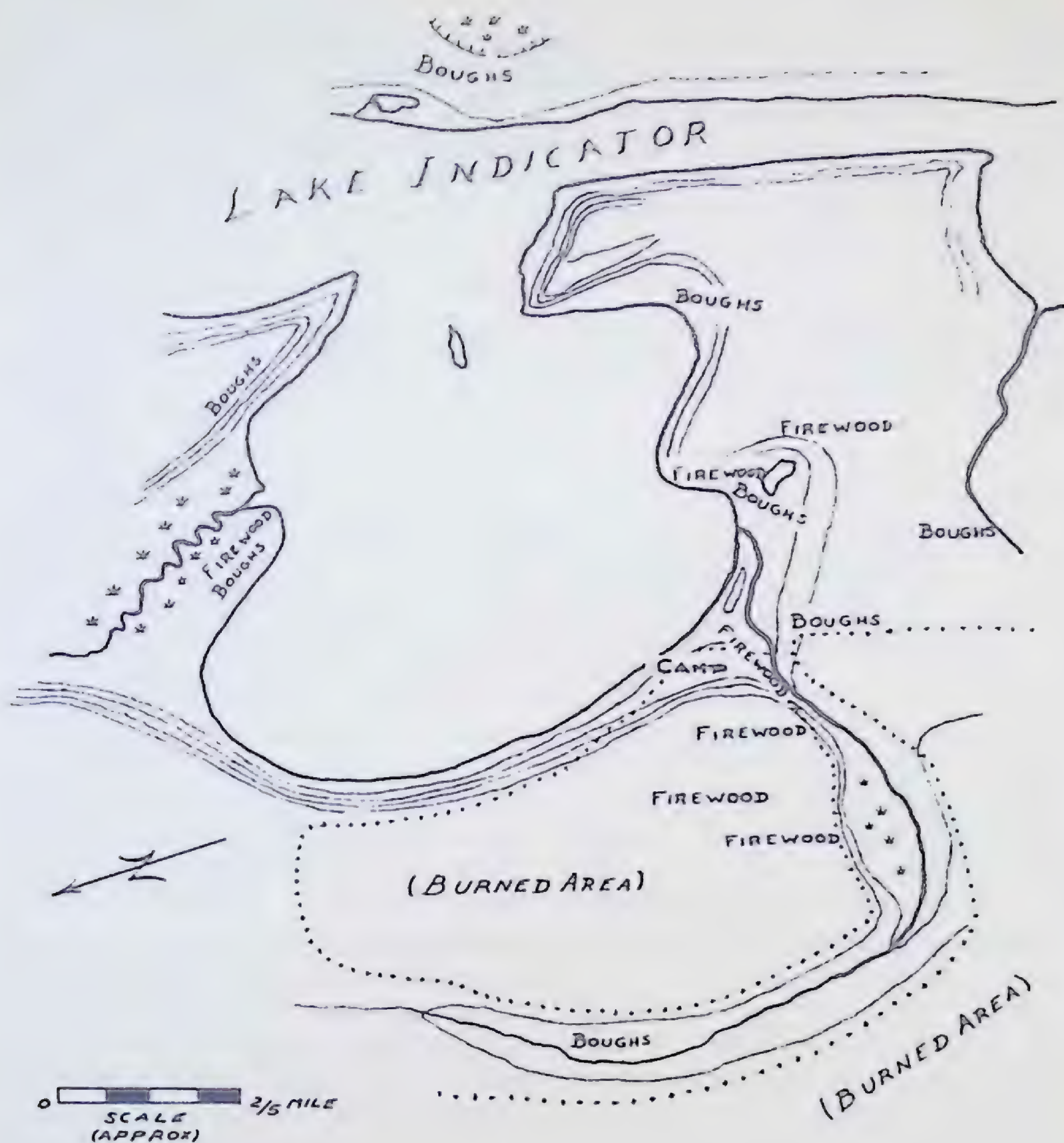
Generally trees were felled with an axe, occasionally with a saw. When a tree was hewn, it was not, as a rule, notched. Rather the axe was brought down repeatedly at an angle to the trunk, first on one side and then on the other, until the tree toppled or could be pushed over. It should be remembered that trees in this area are of relatively small diameter. The trunk was then cleared of branches and cut to the proper length for transporting. If it was to be carried on a sled, toboggan, or in a canoe, the trunk was sawn into sections approximately 6 to 8 feet long. If a man carried the trunk, he ordinarily did not cut it into sections unless it was an exceptionally large tree. During winter, if the logs were not to be transported to camp immediately, they were either piled on branches or placed on end in the snow. A sled or, more rarely, a toboggan was used to transport the wood to camp in winter time. When a woman used a sled, she generally drew it herself. The men usually employed dogs. During summer, logs were either carried on the shoulder or brought to camp in a canoe.

After the logs were conveyed to camp, they were placed on saw frames and cut with a bucksaw into stove lengths. The women and especially the children did most of the work. Generally, two persons worked together. The stove lengths of firewood were then split into smaller pieces with an axe. To do this, the piece of wood was balanced on the edge of one end and held in this position with the toes of the operator's left foot. The axe was brought straight down from overhead until the bit barely entered the top of the wood, and then it was twisted so that the blade was approximately horizontal. This twist produced additional splitting force and, at the same time, acted as a safety measure. If the wood split suddenly allowing the axe to penetrate the length of the piece, the side of the blade rather than the bit struck the operator's foot.

The split wood was piled inside the passage or in front of the lodge. A small supply was kept inside. An attempt was usually made, especially during the winter, to keep a reserve of wood in camp. Immediately after the early winter permanent camp was erected, both men and women gathered a small amount. Following this, the women continued to augment the supply until enough wood was accumulated to provide the camp until it was moved. This routine was continued all winter. Just before break-up, the men made an intensive effort to collect enough wood to carry them through the period when the snow and ice were melting. The work was done early in the morning when there was a crust on the snow capable of supporting sleds.

Light

Formerly, light was furnished by fish-oil lamps, torches, and fireplaces. One informant thought that the lamp consisted of a wooden dish. The wick was made from a piece of cloth tightly wrapped about a button and tied. The cloth, which projected beyond the tie, was trimmed square. The button rested on the bottom of the receptacle holding the cloth wick upright. The square end was lighted. Formerly, moss may have been used for the wick. Fuel consisted of oils from intestinal fat of fish. At present, an expedient is sometimes employed which is similar to the fish-oil lamp; melted lard is placed in the lid of a pail, and a piece of cloth is added for a wick.



MAP 4. Sketch of Early Winter Camp Area with Location of Boughs and Firewood.

Small torches were made. A very thin piece of wood about three-quarters of an inch wide was prepared from Banksian pine wood. Another stick, not necessarily of Banksian pine, was sharpened at one end and split at the other. In the split end the piece of pine was inserted at right angles. The sharpened end was thrust into the floor, and one end of the piece of pine was lighted.

Today, light is furnished by candles and, occasionally, by kerosene lamps. A stick, forced vertically into the ground, is used to hold the candle, which is either tied parallel to the end of the stick or secured to the top of the stick with candle drippings.

Flooring

The floors of all lodges except those at the summer encampment, which were of wood, were covered with boughs of balsam fir and black spruce. Balsam fir was preferred by most families, although one informant claimed that formerly black spruce was popular. White spruce was not used.

Boughs were, as a rule, gathered in the immediate vicinity of camp (Map 4). They were collected primarily by the women and children, although at times the men, or a man and his wife together, did this work. Each bough was broken from the tree by grasping a branch with one hand at the desired length, generally not over two feet from the tip since stems were undesirable, and by breaking it sharply. Occasionally, an axe was used either in removing the boughs or in felling a tree in order to reach them. In extremely cold weather, boughs were not collected since the needles were frozen and fell off when handled.

During the winter, boughs were transported to camp with a toboggan or, occasionally, if there was a crust on the snow, with a sled. They were placed on the toboggan with their stems pointing upward and the concavity of the boughs conforming to the curve at the front of the toboggan. On a sled, the boughs were laid flat. In both cases, string or rope was used to secure the load. In summer, a tumpline was employed. Two sticks were laid parallel on the ground, and the boughs were piled on them at right angles, the tips all pointing in the same direction. When the bundle was completed, one or two sticks were placed on top. The tumpline was tied about the load at right angles to the sticks. The load was carried so that the tips of the boughs, rather than the stems, were against the individual's back. Occasionally, boughs were piled on a blanket or tarpaulin. The diagonally opposite corners were tied together. The bundle was carried on the individual's back, suspended from the forehead by one pair of tied corners.

Extra boughs were often collected and stored in a supply tent. If there was no supply tent and if the sun was hot, they were covered with a tarpaulin or blanket for protection. Occasionally, they were stored under an overturned canoe. During the early stages of the spring thaw, enough boughs were gathered by the men to last until canoe travel was possible. The men worked with sleds and dogs in the early morning when there was still a crust on the snow.

New boughs were put down on an average of about every three days. They were usually placed directly over the old ones. In base camps occupied for periods longer than about a month, the old boughs were removed every few weeks. The boughs were laid in rows across the lodge, each new row overlapping the preceding one, and placed with their convex sides up and with their tips toward the first row. The stems were forced into the ground or underlying old boughs. In one-family dwellings, the operator began at the front and worked toward the rear of the lodge. In communal shelters, boughs were laid from the midline to the sides.

In winter, the floor covering was thickened for added warmth by increasing the amount of overlapping and the angle at which the stems were forced into the floor. In the lodges, hollows developed as the pockets of snow beneath the floor melted. These depressions were filled with old boughs taken from

the higher areas of the floor before a new covering was laid. At base camps, women and girls almost invariably took charge of renewing the boughs.

Black spruce branches were often placed outside the lodge door during the winter. Small trees were hauled to camp, and the branches were removed with an axe, scattered on the snow, and then chopped into shorter lengths to form a fairly level covering. In the spring when the snow was melting, paths between the tents and the areas in front of the tents were similarly covered. This prevented an individual from sinking into the softening snow.

Shelves and Racks

Shelves and racks were erected inside the shelters at base camps. Less elaborate structures were built at travel camps. Two or three shelves were generally placed one above another. In most instances, they were for the storage of a little food and cooking equipment.

In communal lodges, shelves were usually placed on either side of the doorway. Additional shelves were sometimes located at the sides or the rear of the lodge, or both. Those in one-family dwellings were generally situated at the front of the lodge, on the right, behind the stove, as seen from the door. Shelves were made of boards supported on posts driven into the floor, the boards and posts having been shaped with an axe. The top shelf was 3 to 4½ feet above the floor.

In the *inImicUwahp* observed, the shelves were made of poles. Stakes were driven almost horizontally into the upper edge of the snow forming the lower part of the lodge wall. Poles were laid close together across the stakes. There was a large shelf of this construction at the rear of the lodge for the storage of meat, and smaller ones were placed on either side for personal effects and on either side of the doorway for food and cooking equipment.

In all shelters, peeled poles were suspended near the roof for drying clothing, meat, and hides and for seasoning wooden articles. In temporary tents, a single pole was suspended by strings from the ridge pole, and in more permanent tents, four vertical poles were generally erected, a pair at either end. Near the top of each pair, crossbars were attached, and poles were laid across these. In those tents with a pair of arched poles at the front and another at the rear, crossbars were attached near the top of each pair, and poles were laid on them. In the *inImicUwahp*, the crossarms of the A-frame were used to support the poles.

Small racks were sometimes placed along the walls of a lodge. Two sticks, sometimes crotched, were placed vertically in the floor, and a horizontal pole was either tied near the tops of the sticks or placed in the crotches.

As previously noted, a small amount of firewood was kept inside the lodge. To contain it, a post was driven into the ground 20 to 30 inches from the wall of the dwelling and to one side of the door. In communal lodges, there was a post on either side of the door. A string was attached to the top of the post and to the wall of the shelter; or, one end of a stick was nailed to the top of the post and the other end to a pole at the wall. The firewood was piled between the post and the wall, and the string or stick prevented the weight of the wood from collapsing the post.

CAMP EQUIPMENT

Camp equipment consisted of a number of items which were erected as they were needed: supply tents, work tents, sun shades, toilets, cache racks, meat-drying racks, bedding racks, fleshing posts, beaming logs, toboggan planing logs, and saw frames. Generally they were built only when a site was to be inhabited for an extended period of time. Exceptions were fish-drying racks and, occasionally, saw frames and bedding racks. In addition to the above structures, the use of tarpaulins is described in this section.

Supply Tents

Supply tents were used during the winter at base camps. At the early winter camp, the tent was carefully erected so that it would not freeze to the ground since it would have to be moved in January. After the ground was levelled, walls two logs high were erected. The tent was raised with the bottom edge flush with the top of the log walls, and the ridge pole was supported by poles placed at the front and rear. On the outside near each corner of the tent, a post was thrust into the ground. A horizontal pole was tied to the two posts on each side at about five feet from the ground, and strings attached to the eaves of the tent were tied to these poles to hold the sides of the tent in place. Inside, clefts were made with an axe in the top of the log walls. One end of a number of sticks was cut in the form of a wedge, and each stick was inserted vertically in a cleft. After all the sticks were in place, horizontal poles were tied to their tops on each side and at the rear of the tent. In front, a pole was placed on either side of the doorway, and the ends of the poles where they crossed at each corner were tied together. The lower edge of the tent was tied to the top logs of the wall at frequent intervals. The log walls were banked with duff and soil. Shelves constructed of poles were placed at the rear of the tent. At other winter camp-sites, supply tents were erected in the same manner as the winter travel tents (*see Tents*).

Occasionally, if there was an extra tent, it was erected at the winter camp and was utilized as a 'workshop.' This was convenient since the litter did not have to be cleared away, as was the case when articles were manufactured inside the home lodge. The tent was furnished with a stove and floored with boughs.

Sun Shades

Sun shades in the form of tents were occasionally constructed at the summer encampment during very hot and sunny weather. The ground under the tent was covered with boughs on which to sit. The sides were elevated to allow free circulation of air. Sometimes a small dome-shaped lodge frame was built (*see Dome-shaped Lodge*). Canvas was spread over the top.

Toilets

Occasionally, toilets were constructed. At the summer encampment, they were built of boards and peeled logs. Rarely were they erected during the rest of the year and then apparently only at permanent early winter camps. They were made with split logs and poles. The roof was covered with boughs, and the walls were chinked with moss.

Cache Racks

Cache racks were used for the storage of daily supplies as well as for supplies left at the hunting grounds for future use. These racks were also employed for the winter storage of canoes and for the disposal of most animal bones.

Cache racks were constructed in one of two ways. In one, four trees were felled which enclosed a rectangular space about 10 by 4 feet or even larger. The resulting stumps were approximately 5 feet high. If four trees were not available, posts were erected. Notches were cut in the tops of the stumps or posts. When food or clothing was to be left for any length of time, lard pails or flattened pieces of metal were placed over the tops of the posts to prevent mice from gaining access. Next, two poles were laid in notches of the posts along the short sides of the rectangle. Poles were then placed lengthwise on these to form a platform.

The other type of cache rack had a three-post foundation. The posts were notched on top and set in the snow to form a triangle. Two poles were laid across the tops of two pairs of posts. A platform of parallel poles was placed on the open side. This type of rack was often used during the winter if there were few supplies to be stored, but it was not employed for extended periods of time since, as soon as the snow would melt, the rack would collapse.

Cache racks, on which animal bones were deposited, were built on a three-pole foundation similar to the type just described. The posts, however, were generally embedded in the ground, and the rack was somewhat smaller. The platform of poles was covered with boughs to support the bones. This structure was always erected whenever a hunting group had many bones to dispose of, and it was strictly reserved for this purpose.

Formerly, another form of cache was occasionally employed to protect furs from wolverines. Pelts were secured to the end of a long slender pole which was then set vertically in the ground.

Drying Racks

Drying racks were built whenever there was a large quantity of meat to be dried. They were occasionally used to store dried meat and frozen fish. Drying racks were constructed in two sizes: a large one for bear, moose, and caribou meat; and a smaller one, sometimes with two tiers, primarily for fish but also for ducks and muskrats.

The large drying rack had a four-pole foundation. The poles were either tree stumps or posts, placed upright in the ground at the four corners of a rectangular area. The platform was made in the same manner as the four-post cache rack but for the platform poles which were completely peeled and notched near the large ends. The notches fitted over one of the horizontal end poles. The racks were from 4½ to 6 feet high, about 8 feet wide, and from 8 to 12 feet long. The poles for the platform were placed several inches apart.

When a rack was constructed during the winter, the snow within the area of the rack was first removed to ground level. If the snow was of the proper depth, one of the horizontal end poles supporting the platform might be placed on the snow at the edge of the excavation. An inclined path was dug down to the ground on one side.

If the weather was rainy or if the rack was to be used for storage, a covering was built (Plate IIB). At either end of the frame, a crotched pole, approximately 8 to 10 feet long, was placed upright in the ground to support a ridge pole. Along each side of the frame, a horizontal pole was secured near the tops of the corner posts, and the butts of saplings were tied to it on one side. The saplings were then bent over the ridge pole and tied to the horizontal pole on the other side. The arched poles were covered with canvas.

Small drying racks were made almost exactly in the same manner as the large ones. The horizontal end poles, which supported the platform, were either tied to the corner posts or placed on forked posts. Another method of supporting the end poles was to drive wooden wedges into appropriate trees at the proper height. The platform was made of small black spruce poles from which the bark was partially removed. They were notched near their large ends and spaced $3\frac{1}{2}$ to 5 inches apart. The rack was approximately 8 feet long and 6 feet wide. The platform was about 30 inches above the bed of the fire.

Occasionally, the rack was provided with a second platform placed from 50 to 60 inches above the fire bed. It was made in the same way as the first one. The end poles were attached to separate poles or to a continuation of the same corner posts supporting the lower platform. This upper rack was used for drying ducks and muskrats and for temporarily storing dried fish.

Wood for the drying fires was either larch or black spruce. Fir and Banksian pine were not used since their resinous quality was said to affect the meat. To produce a slow-burning fire, rotten and slightly damp wood was chosen.

Cooking Supports

To suspend cooking vessels over an open fire, a pole was thrust into the ground at an angle beside the fire and extending over it. The bail of the container was slipped over the end of the pole. A slightly more elaborate arrangement was sometimes employed at the summer encampment. Two posts were erected, one on either side of the fire. Attached to these was a horizontal pole, on which pot hooks were secured. The hooks were either of metal or crotched sticks.

Bedding Rack

Bedding racks were erected at all base camps and sometimes at temporary ones. A peeled pole was tied in a horizontal position to two poles placed vertically in the ground. Occasionally, crotched poles were used, or each end of the horizontal pole was supported by a wooden peg driven into a tree. The pole was approximately 5 feet above the ground.

Fleshing Post

A fleshing post was erected whenever there were caribou or moose hides from which the subcutaneous tissue had to be removed. It consisted of a post, set vertically in the ground, or sometimes a tree felled at the proper height. The top of the post, prepared in the form of a conoid, was approximately 50 inches above the ground and $2\frac{1}{2}$ to 4 inches in diameter. The post was used in conjunction with a flesher (*see* Hide and Cloth Working Tools).

Beaming Log

Beaming logs and beamers (*see* Hide and Cloth Working Tools) were employed conjointly to remove the hair and epidermal layer from caribou and moose hides. The log, which was generally of black spruce, was from 7 to 8 feet long when placed outside the lodge (during the summer) and approximately 5 feet long when erected inside the lodge (during winter); it was 4 to 6 inches in diameter. One end was sharpened to a point; the other was square. The bark was removed for a distance of about 40 inches beginning at the square end. Occasionally, before the bark was removed, one side of the log was flattened. The pointed end was thrust into the ground at an angle, and the squared end was 2½ feet above the surface of the ground. The flattened surface was on the under side.

Toboggan Planing Log

A special piece of equipment was constructed when boards for toboggans were to be planed (*see* Toboggans). This consisted of a log, somewhat longer than the boards, flattened on one side with a transverse ridge left near one end. The width of the flattened surface was approximately that of one toboggan board. With flattened surface uppermost the log was placed about waist-high, supported by two posts, one at either end. A board to be planed was laid on the surface and held in place by the transverse ridge.

Saw Frames

Saw frames were constructed of four poles thrust into the ground to form two X's parallel to each other and tied together where they crossed for greater rigidity. Occasionally, saw frames or horses, identical to Western forms, were built, but generally these were erected only at base camps.

Coverings

Formerly, birch and black spruce barks were employed for covering supplies. Today, tarpaulins and old canoe canvas are used.

Ceremonial Hides

Since there is no section devoted solely to religious objects and since these hides were hung up outside at the camps, it has been thought appropriate to place them under *Camp Equipment*. The preparation of one such hide was seen. It was treated in the same manner as an ordinary hide intended for moccasins and mittens, except for the following points: Processing of the hide was stopped before the final stage of smoking, and it was left in its frost-dried condition, being pure white. Its edges were trimmed to remove the lacing holes. Formerly, red dots were next placed about the edge of the hide; today, paired cuts are made in its edge. The ears were left attached; this was not so with ordinary hides. The ears were cut into parallel strips, and coloured ribbons were tied about their bases. After the hide was prepared, it was hung over a horizontal pole. The dorsal line of the hide was along the pole, and the head faced the southeast. It was left in this position for a few minutes; then it was taken down and folded with the outside in.

It was said that on various occasions such as the 'Second Fall Feast' (Rogers and Rogers, 1959, p. 135), these ceremonial hides were hung outside the

lodge on one or more lengths of *nimapan*, which were stretched between trees or posts. The posts were arranged in such a way that the anterior ends of the hides pointed toward the east or southeast. Some individuals left the hides out all day and brought them inside in the evening. This was done to bring good luck in hunting. It is not known whether the ceremonial hides were hung outside on other occasions. It was said that an old man at Mistassini used to hang a ceremonial hide outside for a day every winter. At the end of several years, ceremonial hides were smoked and then made into moccasins and mittens.

CARE OF THE CAMP

Although individual variation did occur, lodge interiors on the whole were kept clean and neat. Fresh boughs were usually put down twice a week, more frequently in summer and less often in winter, and all debris was removed from the floor. Animal refuse (with the exception of specific types of bones which were given to the dogs) was placed either on special cache racks or in trees. Other refuse, such as wood shavings and old boughs, was usually thrown behind the lodge. At temporary camps, slops were thrown out the door; otherwise, they were deposited at a distance from the lodge. Spitting was casual but infrequently done inside the lodge. Urination was casual also; and men and boys usually urinated close to the doorway, especially in winter. Defecation generally occurred at some distance from the lodge. In winter, when the snow was deep, a special spot was usually reserved for each family. In the coldest part of the winter, dogs were kept inside the lodge, and then every effort was made to keep the floor clear of their feces. There was a certain disgust shown towards the excrement of dogs.

No care was taken to keep the area about those camps located away from the summer encampment cleared of debris. At the summer encampment an effort was made to maintain the grounds free from rubbish. To this end, the dogs that were not tied aided to a certain extent.

UTENSILS, CONTAINERS, AND TOOLS

Introduction

As has been mentioned previously, equipment was kept to a minimum to facilitate mobility in search of food and furs. In general, only items essential to survival were manufactured or purchased. This is changing today as more and more goods, such as radios and guitars, secured from the traders are being transported about the country. This, in part, has been made possible through the introduction of dog transport and outboard motors. (See Appendix B, where an inventory of goods owned by two families is given.)

There are various classes of items to be discussed under 'Utensils, Containers, and Tools.' These consist of artifacts such as ladles; containers; tools for working hide, cloth, and wood; tools used in the manufacture of snowshoes and gill nets; and tools to deal with snow and ice. In general, there were few specialized tools or utensils. Most were generalized and not restricted to one particular function. A few specialized tools did exist: certain hide-working implements and tools for lacing snowshoes and making gill nets.

Most utensils and tools were used repeatedly, although a few were discarded as soon as their immediate usefulness ended.

Formerly, utensils and containers were made from wood, bark, and skin. Many of these, such as fish spoons, grease ladles, wooden cups, and leg-skin bags, were still in use at the time this study was made. Birchbark containers, on the other hand, were rarely seen, although in the past they were apparently an important part of the material equipment of the Mistassini Indians. There is reason to believe that skin for containers as well as for other purposes was equally important, if not more so, than bark—at least among the more northern families. An informant from the northern area would generally refer to the utilization of skins rather than bark, especially for lodge coverings, for example. The reverse situation was true when an informant from the southern area was questioned. This is to be expected since birch trees of exploitable size are limited or non-existent in the northern part of the Mistassini territory.

Ladles

Grease ladles (Figure 3 and Plate IIIA) were employed for ladling grease from boiling foods and sometimes as scoops for flour when making bannock. In general, the ladle appeared to have greater ceremonial than utilitarian significance. At every feast, one was prominently displayed but used only to deposit an offering of food in the fire and for drinking a little grease.

The shallow bowl of the ladle was approximately 4 to 4½ inches in diameter, and the handle, which joined the bowl at a right angle, was about 5 inches long. The end of the handle projected a short distance outside the rim of the bowl. This projection formed a hook by which the ladle was suspended when in use. One informant stated that the ideal length of the handle was equal to the diameter of the bowl. Departures from this were, he claimed, due to the inexperience of the worker.

The ladle was made of birch. A section of the tree was obtained near the base where a root joined the trunk at nearly right angles. The root formed the bowl and the trunk the handle. The ladle was first roughly shaped with an axe, and then sawn to the proper length; this was generally gauged by the eye. Occasionally, the top of a cup was used as a guide for the size of the bowl. Next, the inside surfaces and handle were partially shaped with a crooked knife, and then the bowl was outlined and hollowed. The deepest part was at the back. The carving was done from the lip toward the base of the handle. Following this, the excess wood about the edges was removed with an axe, and a transverse cut was made with a saw, just below the top of the handle and from the rear side. The wood was next removed with an axe, from the base of the handle to the transverse cut, and the surface was finished with a crooked knife. The edges of the bowl were then carved with a crooked knife, and finally, the bottom of the bowl was smoothed.

The ladle was then hung inside the lodge to dry. After drying, the end of the handle was finished and the bowl was thinned. The thickness and smoothness were occasionally gauged with the operator's fingers. A geometric design might be carved in the front surface of the handle.

Next, the ladle was dyed. The bark of the speckled alder or a willow (sp. ?) was scraped from the stem and placed in water. This was boiled for about an hour and allowed to cool. The ladle was immersed in the liquid

until it had attained the desired colour, ranging in tone from yellow to red brown, depending on the length of time the article was soaked and the dye used. Following this, it was hung to dry.

Fish spoons (Figure 4 and Plate IIIB), made from birch wood, were used after the manner of 'pancake turners' for tending boiling fish and for serving cooked fish. The handle joined the blade at a low angle compared to the grease ladle. The blade was roughly rectangular in outline, and the end of the handle was inclined in a direction opposite that of the blade but approximately at the same angle. The blade was about 4 inches long and about 4 inches wide. The handle was 6 to 7 inches long including the terminal angle.

Wooden spoons were occasionally made for cooking and eating. They were apparently copies of Western forms, although possibly aboriginal. One seen was shaped like a wooden ice-cream spoon and was about the size of a teaspoon.

Bark Containers

Birchbark containers consisted of trays, boxes, dishes, and strips used in packing various goods. Since few large trees grew in the northern part of the Mistassini territory, the families who inhabited this area appear to have gathered bark in June after their return to the summer encampment.

Boxes and dishes were of several shapes. Five were described, all with rectangular bases. In one, the sides of the vessel tapered inward to an oval rim; in another the sides flared outward to an oval rim. In a 'boat-shaped' vessel, the sides flared outward to an oval rim which was higher at the ends than at the sides (Plate IVA). Speck (1930, p. 439; 1937, p. 59, 65) spoke of these as individual food trays or feast dishes. Two vessels with rectangular rims were described. One had sides which flared outward. The other had vertical sides and was possibly a grease container (Speck, 1937, p. 64). The first four vessels had a separate rim attached. It was of wood, probably birch, and was secured to the top of the container with small roots obtained from black spruce or larch. These roots were split in half or quarters, or even smaller sizes, with the fingers or a knife. They were then soaked to make them 'white'; sometimes they were dyed. A 'gum,' most likely from black spruce, was employed to seal the corners of the vessels.

No definite information could be obtained as to size of the vessels, except that some were large and others small. Neither was it possible to obtain data on the various uses to which they were put. Undoubtedly, they were used for storage and cooking. Some were said to have been employed as food containers and others for storing grease.

Birchbark trays may have been of two types, although this is not borne out by the evidence collected. Nevertheless, trays did have two distinct uses. On them game was dressed and food was served, though perhaps only feast food. They were made from a large piece of bark perhaps 4 feet long and about 3 feet wide, or from several pieces of bark sewn together with roots. After the bark was removed from the tree, it was scraped clean. The ends of the sheet, which were the sides resulting from the vertical cut, were then prepared to prevent splitting. A stick, the width of the end, was split in half, and the two halves were secured on either side of the edge by sewing with roots. This was repeated at the other end. A floral design was executed on

the back of the tray. When not in use, the tray was rolled into a cylinder and tied.

Today, strips of old canoe canvas are used to dress game on, but the birch-bark tray was considered better since it would not absorb blood. Also it could be washed readily with water and sphagnum moss to prevent it from developing an odour.

Sheets of birchbark were and still are occasionally used for wrapping dried meat and fish. Four pieces of bark were employed in each bundle. The outside of the sheet was scraped to remove flakes of bark and lichen. The bark was then softened in the smoke of a fire preparatory to wrapping the meat. Two pieces of bark were laid on the ground, side by side, and another piece was slid halfway under these, along the line where they joined. The fourth piece was placed on top covering the other half of the junction of the first two pieces. The four pieces of bark formed a Greek cross. The dried fish or meat was placed at the centre. Then the last piece of bark put in place was folded over the meat; then the piece opposite was folded over, and finally the other two. The bundle was then tied. Today, old canoe canvas or cloth is generally used in place of bark.

Wooden Containers

Wooden dishes were said to have been used in the past, but little information regarding them could be elicited. They were made from black spruce and birch. The dish was about a foot long with the inside hollowed out. Speck (1930, p. 44) gives additional information regarding such dishes.

Wooden cups (Figure 5) are rarely used today. Formerly the cup was carried by a hunter when he was in search of game. He inserted his belt through a hole in the handle. These cups were made from birch burls. The entire cup, consisting of bowl and handle, was cut from a single piece of wood. The burl was hollowed out, and the exterior was smoothed. The handle, which was roughly rectangular in shape, projected outward from the rim at right angles to the bowl. A long rectangular hole was cut completely through the handle from the sides. One or two lines were incised about the rim, and a floral design was incised on the body of the cup. The incisions were painted, and then the cup was dyed by soaking it in a solution consisting of black spruce cones boiled in water, for from twelve to twenty-four hours to produce a brown colour.

The size of the cups varied depending on the size of the burl. The smallest one seen had a bowl diameter of about $2\frac{1}{4}$ inches and a bowl depth of approximately $1\frac{1}{2}$ inches. The handle was 3 inches long, $\frac{7}{8}$ inch wide, and about $\frac{1}{2}$ inch thick. The hole in the handle was $1\frac{1}{2}$ inches by nearly $\frac{1}{2}$ inch. The largest cup seen had a bowl diameter of nearly 3 inches and a bowl depth of $2\frac{1}{4}$ inches. The handle was $3\frac{3}{4}$ inches long, approximately 1 inch thick, and $\frac{1}{2}$ inch wide. The hole in the handle was $1\frac{1}{2}$ inches by nearly $\frac{1}{2}$ inch.

Wooden boxes, made in imitation of Western models, were used to carry the daily food and cooking utensils needed by a family when travelling by canoe. In camp during the fall, the early winter, and the spring, the same boxes were used as cupboards. They were not used during mid- and late winter. Approximately one-half of the top was hinged to the other half with



FIGURE 3. Grease Ladle.



FIGURE 4. Fish Spoon.

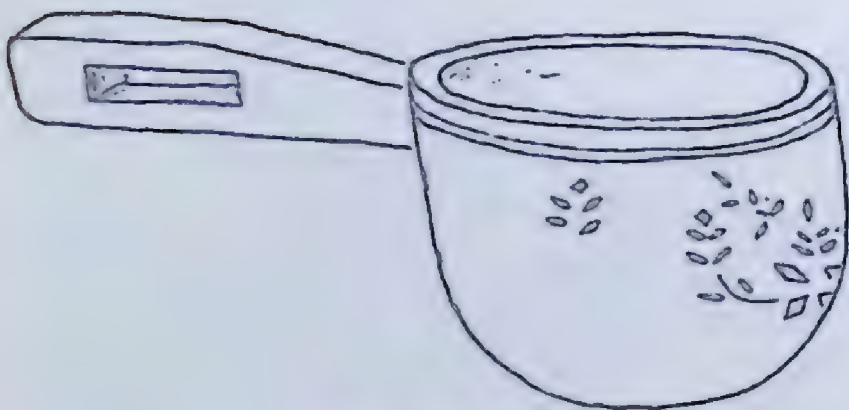


FIGURE 5. Cup

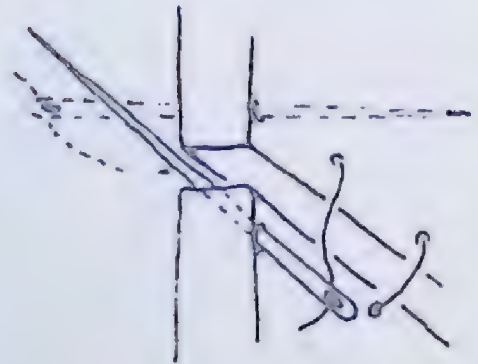


FIGURE 6. Stitch.

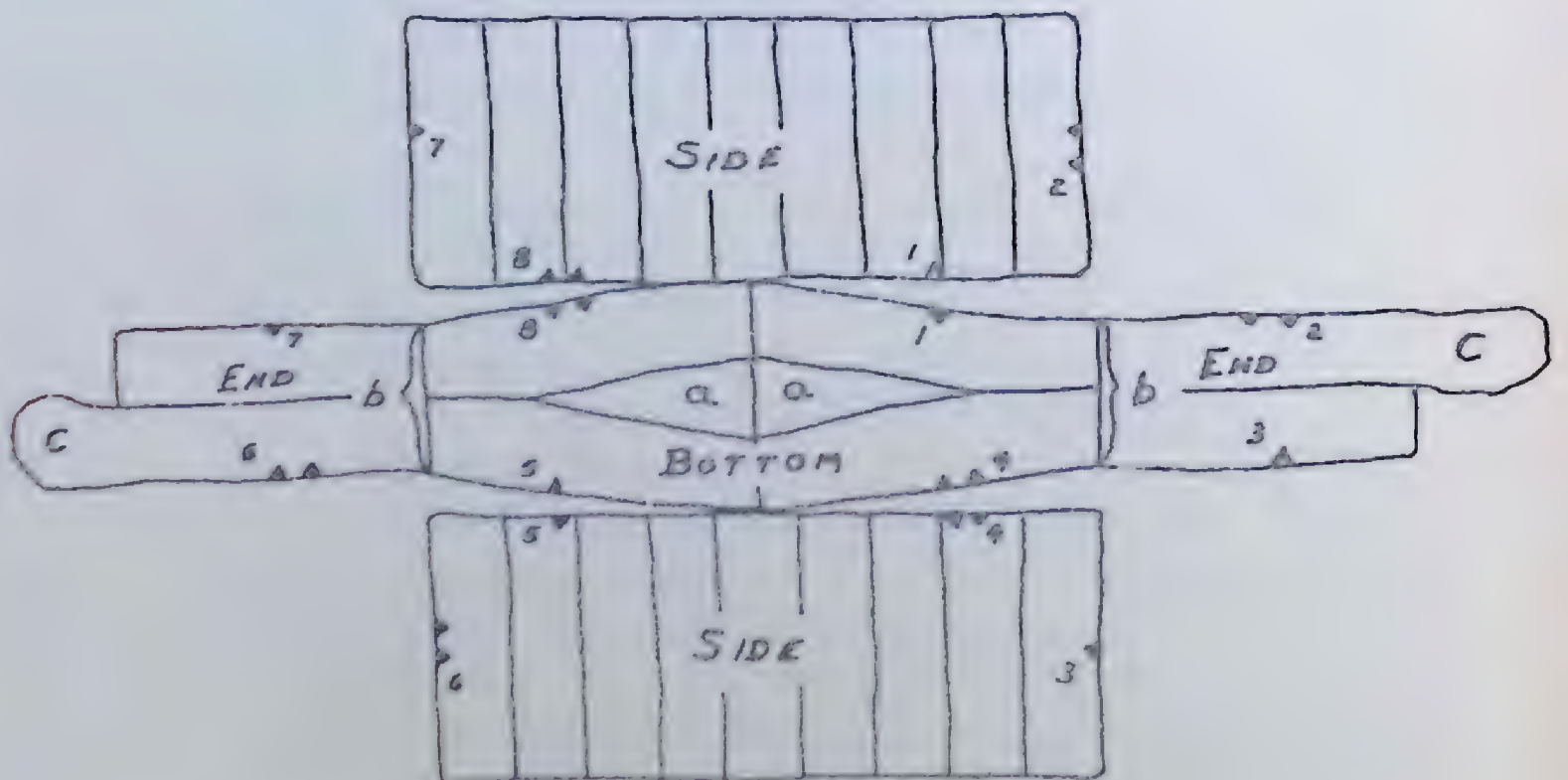


FIGURE 7. Pattern for Leg-Skin Bag.

metal or hide hinges, and the lid was secured with a hide tie. Hide or rope handles were attached at either end.

Skin Containers

There was a variety of skin containers. Skin, as employed here, refers not only to the integument of the animal but also to any tissues used for making containers.

Fish skin containers for grease were made from the skin of large pike which was removed whole by peeling it off. Next, the anal orifice was closed by tying. After the skin was inflated with air and tied at the neck, it was allowed to dry.

The bladders of caribou, moose, and bear were also used as grease containers. While the bladder was still moist, it was inflated and the opening was securely tied; then it was dried.

The subcutaneous tissue of caribou, which had been removed in one piece, was used for wrapping dried meat. While the tissue was still moist, it was wrapped about the meat and then allowed to dry thoroughly. After it was dry, no string was needed to secure the package. The tissue was cut open to remove the meat.

Caribou stomachs were used for the storage of their partially digested contents. The openings were secured with wooden skewers. Caribou and moose(?) stomachs were formerly employed as vessels for cooking. A wooden hoop was secured about the edge of the opening. A bail was made from snare wire. The vessel was placed directly on the stove and was said not to burn. It had to be stirred gently or it would break.

Leg-skin bags varied in size and use (Plate IVB). Large ones were used primarily for the storage of clothing. A similarly shaped bag, but much smaller, was employed by the women as a container for their tools and other small items. Another bag, of cylindrical shape and with a drawstring at the opening, was used by the men for their tools.

These leg-skin bags were made with the hide taken from the metapodial regions of caribou. Moose was said not to be used. When the skin was removed, it was slit lengthwise along the back of the leg. After enough skins had been collected, they were processed preparatory to making the bag. After they were fleshed, the hides were placed in pairs, flesh side against flesh side, and soaked in water. Following this, each pair was wrung, then spread flat on the floor with the hair side up to match for size and colour, and finally trimmed to a rectangular shape. The skins that were to form the sides of the bag (Figure 7) were then sewn together parallel to one another. The long axis was vertical in the sides of the finished bag. Now, the skins for the bottom of the bag were sewn to form a narrow six-sided polygon (Figure 7). The width of the ends was slightly less than the width at the centre of the piece. To achieve this, two triangular pieces of skin (a) were sewn together along their bases to form a diamond. A rectangular skin was sewn to each side of the diamond, and the skins forming the ends (Figure 7) of the bag were sewn to the bottom piece along lines b and b. Next, the sides of the bag were sewn to the edges of the bottom piece (Figure 7, notches 1, 4, 5, 8). Sewing was started at the centre of each side and continued along the edge of the bottom until the ends were

reached. Then, the ends of the side pieces were sewn to the end pieces of the bag (Figure 7, notches 2, 3, 6, 7).

Sewing was done with a steel needle and twisted caribou or moose sinew taken from the back of the animal. To prepare it, the sinew was cleaned of meat and dried. Later it was soaked in water and then separated into threads. Each thread was twisted in either one of two ways. One end of the sinew might be placed in the operator's mouth and the other end rolled between the palms of the hands. In the second method, the operator twisted the sinew on his or her thighs. The operator took a kneeling position. One end of the sinew was held with the palm of the left hand against the left thigh. The other end of the thread was rolled, always in the same direction, between the palm of the right hand and the right thigh. Before the sinew was used, it was moistened by passing it between the operator's lips or dampened hands. Occasionally, it was moistened during sewing.

Two skins were placed side by side, flesh side up, and sewn together with an overcast stitch. The needle was inserted from the flesh side of one skin near the edge. It emerged before penetrating to the hair side (Figure 6). The needle was then forced through the second skin from the hair to the flesh side. The stitch was repeated in this fashion.

A strip of smoked moosehide was added to the top edge of the bag. The strip was approximately 3 inches wide and slightly shorter than the circumference of the opening to the bag. The ends of the strip were sewn together with a running stitch, after which the strip was turned inside out so that the stitches would not show. It was then attached with an overcast stitch, starting at the ends and working toward the centre of the bag. The sewing was done from the inside. The skins at the end of the bag were gathered slightly to accommodate the smaller circumference of the hide border.

Handles were now prepared. The skin from the region of the hock had been left attached to one of the skins at each end of the bag (Figure 7, c). The hemispherical portion of the skin was turned inside out and stuffed with caribou hair or with the scraps of skin left from trimming the original pieces. Next, it was sewn closed. These then formed knobs, flesh side out, at each end of the bag. Following this, holes for the insertion of lacings to close the bag were cut near the upper edges of the moose hide border.

The finished bag was now turned inside out. A piece of cardboard was fitted into the bottom, and the bag was tightly packed with cloth and caribou hair. A stick was placed the length of the opening and secured under the handles. In this way the bag was held in shape while drying. When the bag was dried in cold weather, the skins retained their pliability.

A skin bag recently acquired from Mistassini is made from a cased beaver pelt. A strip of cloth has been sewn about the opening and a drawstring attached (Plate VA).

The chin skin of the bear had a special use. It was made into a bag to hold the *lingual frenulum*, which the hunter carried as a hunting charm. The bag was made by the women of the hunting group. The skin was first scraped and then laced to a small stretcher (*see* Hide and Cloth Working Tools) until it was dry. After it was removed from the stretcher by cutting the lacings, it was trimmed roughly to a diamond-shape. The sides of one half were slightly

longer than those of the other half. The long sides were decorated with coloured bias binding and embroidery thread. Tassels were affixed at all points of the diamond, and a loop was made at the juncture of the two long sides. This represented the nose of the bear; the tassel at the point opposite, the tail. A strip of cloth was sewn along the long axis of the skin. The *lingual frenulum*, which the hunter had kept since dressing the bear, was now given to the women preparing the skin. This was placed on the strip of cloth which was then folded lengthwise about the *lingual frenulum*, and the edges were sewn together. The decorated chin skin was now presented to the hunter.

Cloth Bags

Small cloth bags, decorated with embroidery, were made to hold hymnals and prayer books (Plate VB). Larger bags, occasionally decorated with bias binding and closed with a drawstring, were employed to hold a drum. Sometimes the drum and bag were kept in a second bag made of canoe canvas. Cloth or canvas bags, made in imitation of the large leg-skin bags, were used as containers for bedding when travelling. Small 'roll-up' bags were used by the women in which to keep needles and other sewing equipment (Plate VIA).

Knives

Knives were reported to have been formerly of bone. One informant stated that a very thin rib of a young caribou was used.

Stirrer

Roughly-shaped sticks were sometimes employed for stirring large kettles of blueberries. They were made from a piece of dry wood, as the occasion demanded. The 'stirrer' was roughed out with an axe. The handle expanded at the distal end into a paddle-shaped blade. Stirrers were between 10 and 20 inches long, with a blade 1½ to 2½ inches wide.

Spits

Spits were employed for roasting meat and cooking bannock before an open fire or stove. They were made from small sticks, generally spruce, about 20 inches or a little more in length and one-half to one inch in diameter. The bark was removed. The end which was forced into the ground was tapered rather abruptly to a point; the other end, on which food was skewered, tapered more gradually.

Pounding Block

A block was employed on which to pound dried meat. It was a section sawn from a large log 10 inches or more in diameter and 1½ to 2½ inches thick. Sometimes a flat stone of approximately the same dimensions was used instead.

Hide and Cloth Working Tools

Tools for removing and preparing hides and making hide and cloth articles were skinning tools, fleshers, beamers, scrapers, thong-gauge knives, stretchers, needles, scissors, and sewing machines.

A bone tool was employed for skinning beaver (Plate VIB). It was made from the leg bone of a bear or moose. The tool was 5 to 7 inches long. One

end of the bone was cut transversely; the other end was bevelled and its edge was often serrated. It was similar to the bone flesher but was never weighted. Those observed were undecorated.

Bone and occasionally metal fleshers were used to remove the subcutaneous tissue from caribou and moose hides and sometimes caribou leg-skins. They were generally made at the time of the first kill at a new camp and were abandoned when camp was moved.

The flesher (Figure 10) was made from either the metatarsal or metacarpal bones of moose or caribou and a piece of wood. There were two methods of

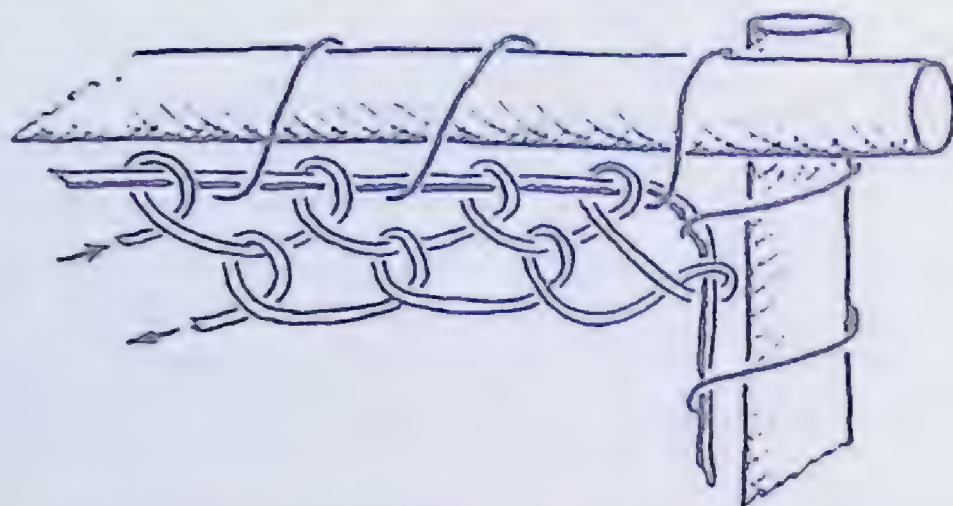


FIGURE 8. Weave for Rabbitskin Blanket.

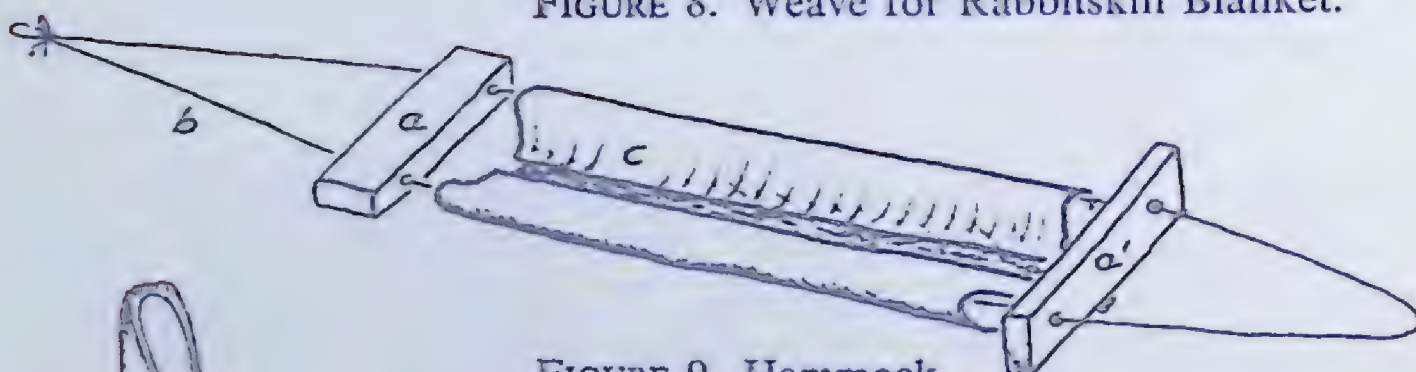


FIGURE 9. Hammock.



FIGURE 10. Flesher.



FIGURE 11. Semi-Lunar Knife.

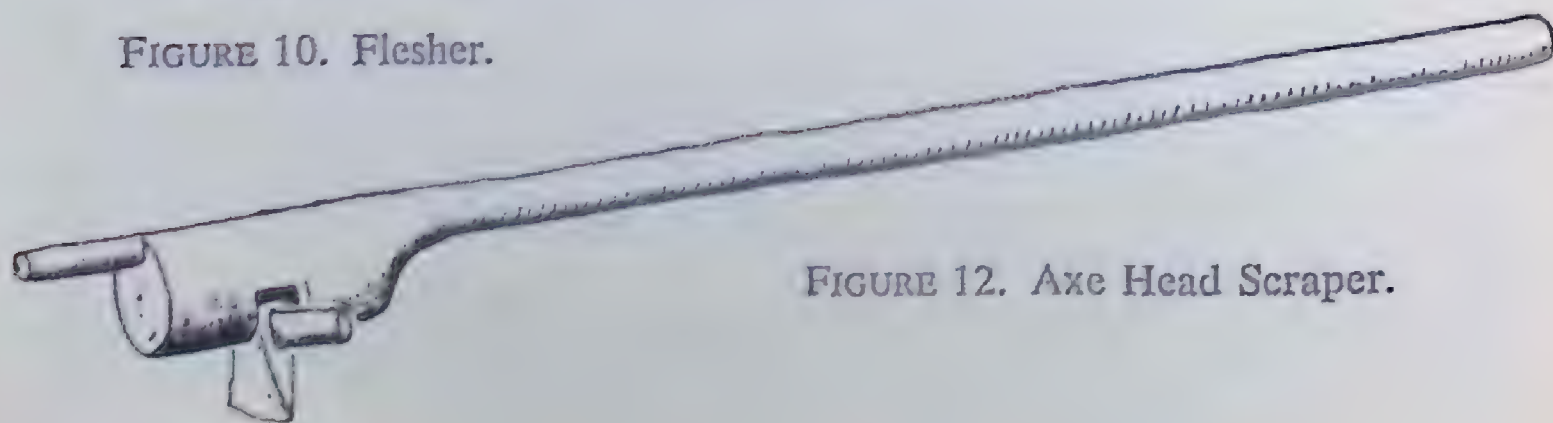


FIGURE 12. Axe Head Scraper.

preparing the bone. In one, the bone was first cut in half. To accomplish this, a diagonal cut was made which produced a bevelled or chisel-shaped end on each half of the bone. The proximal half was now prepared as a flesher. The bevelled end and the longitudinal ridges of the proximal section were smoothed with an axe, and the bevelled surface was then smoothed on both sides with a file. A groove encircling the bone about two inches from the proximal end was cut with a file and enlarged with an axe until the end could be removed. The cut surface was smoothed with an axe and then a file, and the partition within the marrow cavity was removed with a knife.

The second method of preparing a bone flesher was to split the metacarpal or metatarsal bone lengthwise, and to cut one section transversely in half. Following this, one of the resulting pieces was squared at one end and bevelled at the other. The bevelling was done on the inside surface of the bone.

Occasionally, a piece of metal instead of bone was employed. The metal was shaped approximately like the second type.

Fleshers were weighted. The weight was often made from a section of a black spruce pole 3 to 4 inches in diameter and 7 to 10 inches long. A transverse cut was made about four to six inches from one end and extended almost completely through the wood. The two halves were left attached by a small section of wood at the edge or near the centre. Next, the smallest half was removed except for the wood joining the two pieces. This formed a spike (Figure 10, a) several inches long projecting from the end of the remaining half (b). The spike was smoothed until the bone flesher could be slipped over it. A groove was cut for approximately three-quarters of the distance around the weight. It was placed either near the end, the middle, or diagonally about the central half. Finally, the bone flesher was slipped over the spike. If the flesher was of the second type, it was bound securely to the spike, first with canvas and then with string. The metal flesher was attached in the same way.

The bevelled end of the bone was now serrated. After about six notches had been cut with a file, they were smoothed with the edge of a caribou or moose rib. The edge nearest the proximal end was used. When this had been done, both surfaces of the bevelled end were lightly smoothed with a file.

A strip of cloth or hide was attached to the weight. One end of the strip was secured about the groove, and the other end was tied in a loop. This latter fitted about the operator's wrist when the flesher was used. Fleshers were used with a fleshing post (*see* Camp Equipment). When they were not in use, a piece of caribou or moose subcutaneous tissue was wrapped about the bevelled end of the bone.

Beamers were employed to remove the hair and epidermis from caribou and moose hides. They were made from the metatarsal and metacarpal bones of either caribou or moose. As far as could be determined, none were ever made of metal. Generally, the bone was split along a line of fission between the third and fourth metapodia, and a groove was chipped on both sides of the bone with an axe and deepened until it entered the marrow cavity. The bone was then separated into halves. Another method was to remove the bone from one side with an axe. The ends were left intact. One or both edges of the bone were now sharpened, first with an axe and then with a file. The rough projections at the proximal and distal ends were removed with an axe. Occa-

sionally, even a small section of the distal end was severed from the beamer. The beamer was used with a beaming log (see Camp Equipment).

Scrapers were of several forms and included a semi-lunar 'knife' and mounted and unmounted axe heads. They were used for moose, caribou, and beaver hides. Knives were often employed as scrapers for small pelts such as mink, marten, and otter.

The semi-lunar 'knife' (Figure 11 and Plate VIIA) was never used for cutting or chopping. All data indicate that it was reserved solely for scraping caribou and beaver skins. Formerly, the semi-lunar 'knives' were made from the palm of a large caribou antler. The palm was cut so that a tine remained at each corner; the intervening ones were removed. The proximal end was sharpened to a convex edge suitable for scraping, and the tool, when used, was gripped between the two tines. Today, the semi-lunar 'knives' are made of metal. The pieces of metal utilized varied somewhat in outline, but they all had two features in common: they were thin and had one convex scraping edge that was bevelled on one side only. One specimen (Figure 11) measured $4\frac{3}{4}$ inches long by $2\frac{3}{4}$ inches wide. The convex edge was along one long side; a piece of cloth was wrapped about the other long side. Occasionally, a strip of wood or antler was attached to the edge as a grip, or a forked stick was sometimes used as a grip. Another specimen was roughly triangular in outline. The sides were $4\frac{1}{4}$, $5\frac{1}{2}$, and $7\frac{1}{4}$ inches in length, the longest side forming the convex scraping edge. A rectangular hole, approximately an inch by 3 inches, was located parallel to, and three-quarters inch from, the second shortest edge. The metal about the hole, which was wrapped with cloth, formed the handle.

An axe head was often used instead of a semi-lunar 'knife' for scraping beaver, caribou, and small moose hides. It was not hafted. Another type of scraper consisted of an axe head, mounted transversely near the end of a long black spruce pole (Figure 12). This was employed for scraping moose hides and was manipulated by two people. The pole was approximately 7 feet long. It was about 2 inches in diameter for the first six feet of the length. Then, for approximately seven inches it had a diameter of 4 inches. The axe head was mounted in this section. The pole continued for approximately four inches beyond this section and was about $1\frac{1}{2}$ inches in diameter. It functioned as a handle when the scraper was used.

To mount the axe head, a transverse cut one inch wide and several inches deep was made in the expanded section of the pole. The poll of the axe head was inserted in the cut. A piece of wood was passed through the socket and projected about two inches beyond the axe head on either side. These two projections formed additional handles.

A special tool (Figure 13) was employed to cut moose and caribou hides into babiche. The thong was used primarily for lacing snowshoes. The tool consisted of a small piece of wood (a) and a metal blade (b). The wood was 3 inches long, $1\frac{1}{4}$ inches wide, and $\frac{3}{8}$ inch thick. At the centre of one side, a notch, approximately $\frac{1}{8}$ inch wide and $\frac{1}{4}$ inch deep, was cut. The size of the notch varied slightly, depending on the size of the thong desired. Next, a razor blade was broken into quarters. The end of the thong (c), started with scissors, was placed in the notch. A section of the razor blade was placed

against the thong and vertical to the surface of the wood. The sharp edge of the blade was forced into the wood.

Stretchers were employed for drying mammal skins. There were two basic types depending on how the animal was skinned. Those for cased skins, such as mink, marten, squirrel, and ermine, were made of three pieces of wood. The pelt was drawn over the stretcher. The other type, for open skins such as bear, moose, caribou, and beaver, was made with several poles to form a frame within which the hide was laced taut.

Stretchers for cased skins (Figure 14) were made with three pieces of dry wood; a wedge (a) and two moulds (b). They were fitted side by side, the moulds on the outside with the wedge in between. Each piece was first roughly shaped with an axe and then finished with a crooked knife. The pieces were relatively thin. The wedge tapered to a point at one end; the other end was roughly circular in cross-section and formed a 'handle.' The two moulds were mirror images of each other. They fitted against the edges of the wedge below the 'handle.' The ends of the moulds were bevelled.

The size of the stretchers varied, depending on the kind and size of pelt. The smallest were those for ermine skins. The moulds were approximately 14 inches long, with a maximum width of about $\frac{3}{4}$ inch for each one. The wedge was from 12 to 13 inches long and was about $\frac{3}{4}$ inch wide at the broadest point. The largest stretchers were for otter pelts. The moulds were more than 50 inches long and approximately 3 inches wide. The wedge was of similar size.

The second type of stretcher was made of poles. There were three varieties of this type: a rectangular form for moose and caribou hides, a U-shaped form for bear skins, and an elliptical form for moose and caribou head skins and beaver pelts.

Stretchers for moose and caribou hides consisted of four poles joined to form a rectangle. Two tree trunks or posts, several feet apart, were used to support one end of the frame. A pole, which formed one end, was tied horizontally to the two uprights and approximately three feet above the ground. The ends of two other poles were now secured to this pole about six feet apart. The poles were at right angles to the latter and parallel to each other. These formed the sides of the frame. The other ends rested on the ground or snow. About two feet from the lower end of the side poles, a fourth pole was attached at right angles. It was parallel to the first pole and approximately eight feet from it. These dimensions were for frames used for moose hides. Somewhat smaller frames were employed for caribou hides.

Stretchers for bear skins were made of four black spruce poles, each about $1\frac{1}{2}$ to $2\frac{1}{2}$ inches in diameter. First, two poles of equal length were tied together at their apexes. The poles were then bent into a U-shape and held in this position with string tied to the butt ends. The bear skin was stretched within the frame so that the proper length and width of the latter would be gauged. If the size of the frame was not correct, it was adjusted. Following this, a pole, flattened on either side at the ends, was nailed to the U-shaped piece just below the arc. A second pole was measured against the top crossbar and marked and cut to the proper length. Next, it was placed near the ends of the U-shaped piece. The proper distance on both sides

between the two crossbars was measured with an axe handle and marked. After this, the crossbar was prepared in the same way as the first one and nailed to the frame at the points marked. The bark was then partially removed from the poles, and the ends of the crossbars were sawn so that they were almost flush with the sides of the frame.

The one frame observed measured 52 inches from crossbar to crossbar and 25 inches from the centre of the arc to the middle of the first crossbar. The width of the frame was approximately 5 feet.

A small frame of similar outline was employed for stretching the bear chin skin. The stretcher was made of two twigs. One was bent into a U-shape, and the other tied across the ends of the bent pieces.

The frame employed for beaver pelts, and occasionally for the head skins of moose and caribou, was made with either one or two poles of black spruce or alder (about 2 inches in diameter). Frames made of two poles were the most common form and were elliptical in outline. During cold weather, the poles were first warmed inside the lodge before being bent. The butt ends were then flattened on what was to be the inside of the frame for a distance of two to three feet. One pole was bent into a U-shape and held in position with string secured near the ends. The second pole was similarly bent. The two pieces were fitted together to form an elliptical frame. The ends of one U-shaped pole were placed against the inner side of the ends of the other pole. The large ends were placed on one side of the frame and the small ends on the other. The two halves were adjusted to make the frame the proper length. Then the ends adjoining on either side were bound together. The excess length of the small ends was removed with an axe, and the string originally holding each half in an arc was untied. The frame was now bent at various points to even the curves at either end.

The single pole frame was made in essentially the same way. One end of a pole was bent into a curve for one end of the frame; then the other end was bent to complete the ellipse. The ends of the pole were bound together at the side of the frame.

Frames varied in size, but generally they were made only slightly larger than the skin to be stretched.

A special tool was used to prepare hare skins destined to be made into blankets and clothing. After the hide was cut, the strip was twisted. First, a split was made at one end of a short stick, and one end of the hide strip was inserted in the cleft. The stick was grasped between the palms of the hands and rotated in the same direction until the strip was properly twisted.¹ A second method of twisting the hide involved the co-operation of two people. Each rotated between his or her palms in opposite directions a split stick which was attached to either end of the strip of hide.

Needles were of several varieties depending upon their use. There was a special needle for lacing beaver pelts to the stretcher, one for making rabbit-skin blankets, another for sewing hides, and a common steel needle for sewing cloth and doing embroidery.

¹Speck speaks of this tool and adds that a bag of sand was attached to the other end of the strip of hide which was placed over a horizontal pole (1930, p. 453-4).

Formerly, the needle for lacing beaver pelts to a frame was said to have been made of bone. Today, a sacking needle, obtained from the trading companies, is used. It is never sharpened.

Rabbit-skin blanket needles were made from a thin piece of bone or wood (Plate VIIB). They were round or square at one end and pointed at the other and were approximately 3 inches long and $\frac{1}{2}$ to $\frac{3}{4}$ inch wide near the base. An eye, rectangular in outline in wooden needles, was cut near the rounded end. No information was derived as to the shape of the eye in bone needles, but presumably it was the same.

Needles for sewing moccasins, mittens, and leg-skin bags were obtained commercially. They were small with bayonet points and were sharpened whenever they were used. Ordinary steel needles were used for embroidery on smoked hide and for sewing on cloth. Portable sewing machines were commonly employed for making tents, hunting bags, and clothing.

Woodworking Tools

Tools employed in the construction of wooden articles and equipment were axes, saws, crooked knives, files and rubbing stones, drills, chisels, awls, wedges, vises, clamps, mallets, and paint brushes.

An old informant said he had heard that before the advent of steel a 'stone' was employed as an axe. Recently, axes have been obtained from the trading companies. They were of three sizes: a large axe, used primarily for collecting and splitting firewood; a small one, employed when camp was erected and when the men were hunting and trapping; and a hatchet, used only occasionally.

Axe handles were frequently broken. New ones were made of birch. The wood was first roughly shaped with an axe and then smoothed with a crooked knife. The handle was dried for several days before it was mounted.

Bucksaws were used for sawing firewood. Cross-cut and key-hole saws were employed in the manufacture of wooden artifacts. These were all obtained from the trading companies.

The crooked knife (Figure 16 and Plate VIIIA) was a basic tool among the Mistassini Indians and was used in the manufacture of nearly all wooden articles. It was made in a style fitted for either a right- or a left-handed individual. There were two types, determined primarily by the way in which the blade was mounted. Crooked knives ranged in over-all length from approximately 5 inches to almost 12 inches. The small ones were preferred for hollowing out small depressions.

The blade (a) was made from a file, and its distal end was slightly curved. The face of the blade within the bend and along the length of the same side was sharpened. The obverse face was sharpened infrequently, and then at a very low angle. The tail of the file was bent in the opposite direction from the distal end. The handle (b), forming about two-thirds of the total length, was of birch. The last few inches of the handle expanded and curved upward toward the back, and a wide shallow groove was cut along one side of the handle in the distal half. This was to hold the proximal end of the blade. At the end of the groove near the centre of the handle, a transverse hole (c) was made in which the tail of the file fitted. That section of the blade which fitted into the groove was wrapped with cloth, and a thin piece of wood (d)

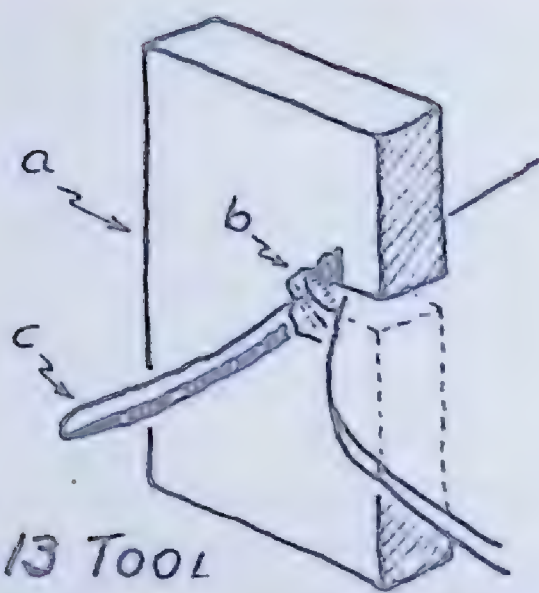


FIG 13 TOOL

FIGURE 13. Tool for Cutting Thong.



FIGURE 15. Netting Needle.

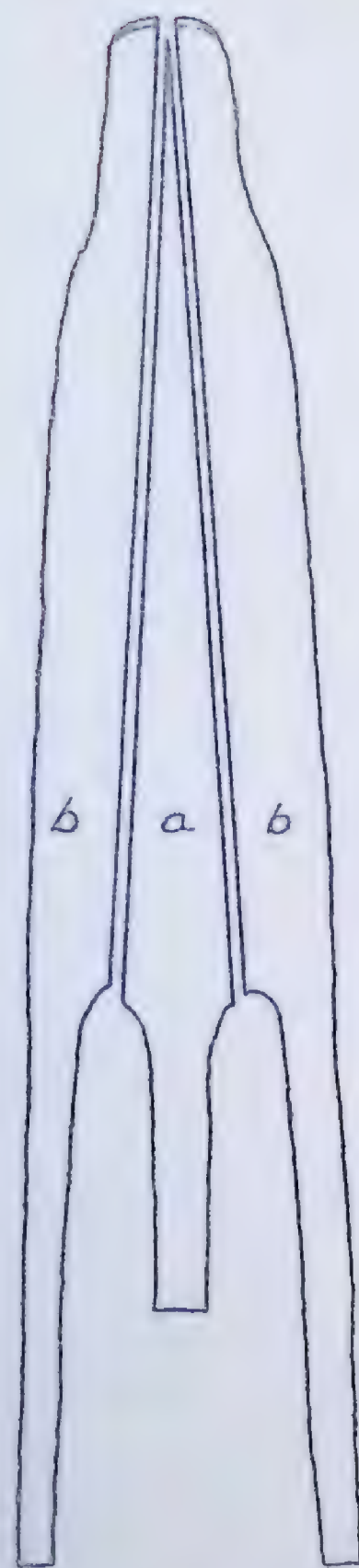


FIGURE 14. Mink Stretcher.

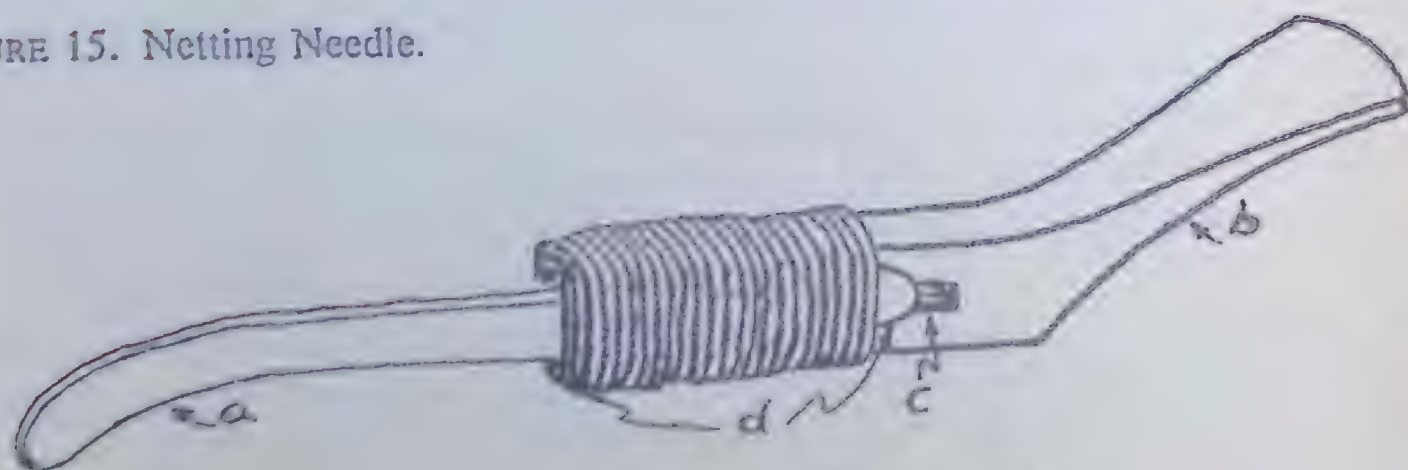


FIGURE 16. Crooked Knife.

was placed over the groove and blade, all made secure by wrapping the handle with string. Another way to mount the blade was to cut a narrow groove along the back of the handle in the distal half. The groove penetrated to a depth which equalled the width of the blade. Near the middle of the handle, the groove curved to one side, holding fast the tail of the file. The proximal end of the blade was inserted in the groove, and the handle was wrapped with string.

Steel tools, especially crooked knives, were sharpened with small files and rubbing stones. These latter were fine-grained pebbles found on the shores of lakes and rivers. Steel files, obtained from the trading companies, were used to smooth the surface of snowshoe frames and snowshovels and to sharpen bone tools. Double cut files were preferred for woodworking.

Formerly, the holes made in snowshoe frames for the selvage thongs were said to have been drilled with bone awls. Today, small pump drills, obtained from the traders, are used. Occasionally, small drills were made. One that was seen had a wooden handle, $2\frac{5}{8}$ inches long and $\frac{7}{8}$ inch in diameter at the small end, in which the bit was hafted. The other end was rounded, with a maximum diameter of approximately $1\frac{1}{4}$ inches. The bit consisted of a large metal fish-hook, in which the bend had been straightened and the eye removed. The end of the shank was sharpened to a point with four faces, and the barbed end of the hook was in the small end of the handle to keep the bit from coming loose. In addition, braces and bits were employed for making larger holes.

A chisel with a handle like that for the small drill was observed. A small piece of metal, square in cross-section, had been bevelled at one end. The other end was set in the end of the handle.

For splitting logs, wedges and mallets of green black spruce were used. Wedges were approximately 3 inches in diameter and 15 inches long. One end was cut transversely; the other was wedge-shaped. The handle of the mallet was about $1\frac{1}{2}$ inches in diameter and $1\frac{1}{2}$ feet long. The other half was approximately 4 inches in diameter and $1\frac{1}{2}$ feet long.

Clamps for holding toboggan boards and snowshoe frames in position were made as the need arose. The clamp consisted of two sticks placed parallel to one another and tied together at one end. The open end of the sticks was slipped over the parts to be held together. The free ends were then bound securely together with string.

A type of vise was employed to hold toboggan boards while they were being trimmed. A stick was split at one end, and the two halves were held apart with a wooden wedge. The stick, which was approximately three feet high, was placed upright in the ground. The split end held one end of a board (*see Toboggans*). If a stump was convenient, it was prepared as a vise instead of erecting one.

Paint was applied to hide and wood in one of several ways. For decorating hide, such as rattles and drum heads, a small stick, circular in cross-section, was used. The flat end of the stick was dipped in the paint and then pressed against the hide. The stick was held at right angles to the surface forming a circular design. A brush for painting wood was made of a small piece of smoked hide wrapped about the end of a small stick. The hide projected a

short distance beyond the end of the stick. Paint brushes, obtained from the trading companies, were used for painting canoes and many wooden articles.

Tools for Lacing and Unlacing Snowshoes

Several tools were employed for lacing and unlacing snowshoe webbing. These consisted of a netting needle, 'mesh evener' and spreader for the former operation, and a lynx jaw bone for the latter.

The netting needle was made from a thin piece of bone or metal. It was lenticular in outline with a hole at the centre and varied in length from approximately $2\frac{1}{4}$ inches to $4\frac{1}{2}$ inches and in width from $\frac{1}{4}$ to $\frac{1}{2}$ inch. The small ones were used in lacing the toe and heel sections of snowshoes where the thong was finer and the mesh smaller. The large needles were employed in lacing the centre section.

During and at the completion of lacing, the mesh was evened. For this task, the leg bone of 'a large animal' was employed. The prepared bone was approximately a foot long and tapered to a point at one end. At present, the handle of a large metal cooking spoon is commonly used. The bowl is removed, and the severed end of the handle is sharpened to a point.

A spreader was used to hold the toe hole open while the centre section of the snowshoe was being laced. It was made from a narrow and thin piece of wood. Each end was concavely at right angles to the width. The spreader for adult snowshoes was approximately 3 inches long, 1 inch wide, and $\frac{1}{2}$ inch thick.

To remove the lacings from worn snowshoes, the dentary bone of the mandible of a lynx was used. The canine tooth acted as a hook and the ascending ramus as a handle. Today, the can-opener of a jackknife is sometimes employed instead.

Tools for Making Gill Nets

A netting needle and gauge were employed in the manufacture of gill nets. This type of needle (Figure 15 and Plate VIIIB) was pointed at one end and concave at the other. A portion of the wood within the pointed half was removed, leaving a frame and a spike of wood extending from the middle of the needle almost to the tip.

These needles varied greatly in size. Some were small, not over several inches in length, and were used as toys by the young girls. Others were larger, ranging from 7 to 8 inches in length, and employed in the manufacture of gill nets. In addition, there was an even larger netting needle, 17 inches or more in length, employed when the selvage lines were attached to the net. The needles varied from $\frac{1}{8}$ inch to $\frac{3}{8}$ inch in thickness and from approximately 1 inch to slightly over 2 inches in width.

Netting needles were commonly made of birch. A thin section was split from a block of wood and smoothed flat with a crooked knife. The outline of an old needle was drawn on the wood. Next, the excess wood within the pointed end was removed with a jackknife leaving the spike, which was then smoothed. Following this, the wood about the edges of the piece was removed to the outline with a crooked knife. The other end was sawn to the proper length, and the wood between the corners was removed with the crooked knife

leaving a projection at each corner. The netting needle was allowed to dry for several days before being used.

The net gauge was a thin rectangular piece of birch, approximately 2 by 3 inches and slightly less than half an inch thick. The edges along the two longest sides were rounded.

Snow and Ice Tools

There were two tools employed specifically in connection with snow and ice. These were snowshovels (or ice scoops) and ice chisels. In addition, there were 'brushes.'

Snowshovels (Figure 17 and Plate IXA) were of two sizes: large and small. The large ones were used to clear away the snow when erecting a base camp during the winter, for banking the lodges, and for clearing paths. They were also employed as scoops to remove the broken ice from the openings made when setting and tending gill nets and set lines. Small snowshovels were carried by the men when they went on hunting and trapping trips and were used to remove the snow when traps were set or examined and when 'hunting' camps were erected. They also acted as 'walking sticks' when the men were snowshoeing and were used for testing new ice when walking on it. Often the men pushed the sleds with these shovels when aiding the dogs in their work.

Large snowshovels were approximately 55 inches in length. The blade was about 7 inches wide and 18 inches long. Small shovels were from 40 to 45 inches long; the blade was 3½ to 5 inches wide and 10 inches long.

Snowshovels were made from the sapwood layer of birch trees. The wood just below the bark formed the top surface of the handle and top edges of the blade. The shovel was roughly shaped with an axe before it was brought to camp where it was finished. The ends were sawn to the proper length, and the blade and handle were reduced in size with a crooked knife. Following this, several lines were drawn on the blade as guides. To do this, one end of a string was tied about the base of the handle, and the other end was wrapped about a pencil until the desired distance between the pencil and the base of the handle was attained. An arc was then drawn to indicate the curved end of the blade. The string was shortened and another arc was drawn indicating the position of a transverse ridge located several inches from the end of the blade. The pencil and string were removed, and a line was drawn around the inside of the blade near the sides and base of the handle. After this was done, the area enclosed by this line and that for the transverse ridge were hollowed out with a crooked knife. Next, the lip of the blade, between the transverse ridge and the end of the blade, was hollowed out very slightly. The edges of the blade were trimmed, and the back of the blade was reduced to the desired thickness. Finally, the handle was finished.

The snowshovel was then hung to dry for several days. After this, it was smoothed with a crooked knife and sandpaper, and the blade was painted either green or red. Often a geometric design was painted at the base of the handle (Figure 17).

Ice chisels were employed for making openings in the ice in order to set gill nets and lines and to obtain drinking water. One informant thought that

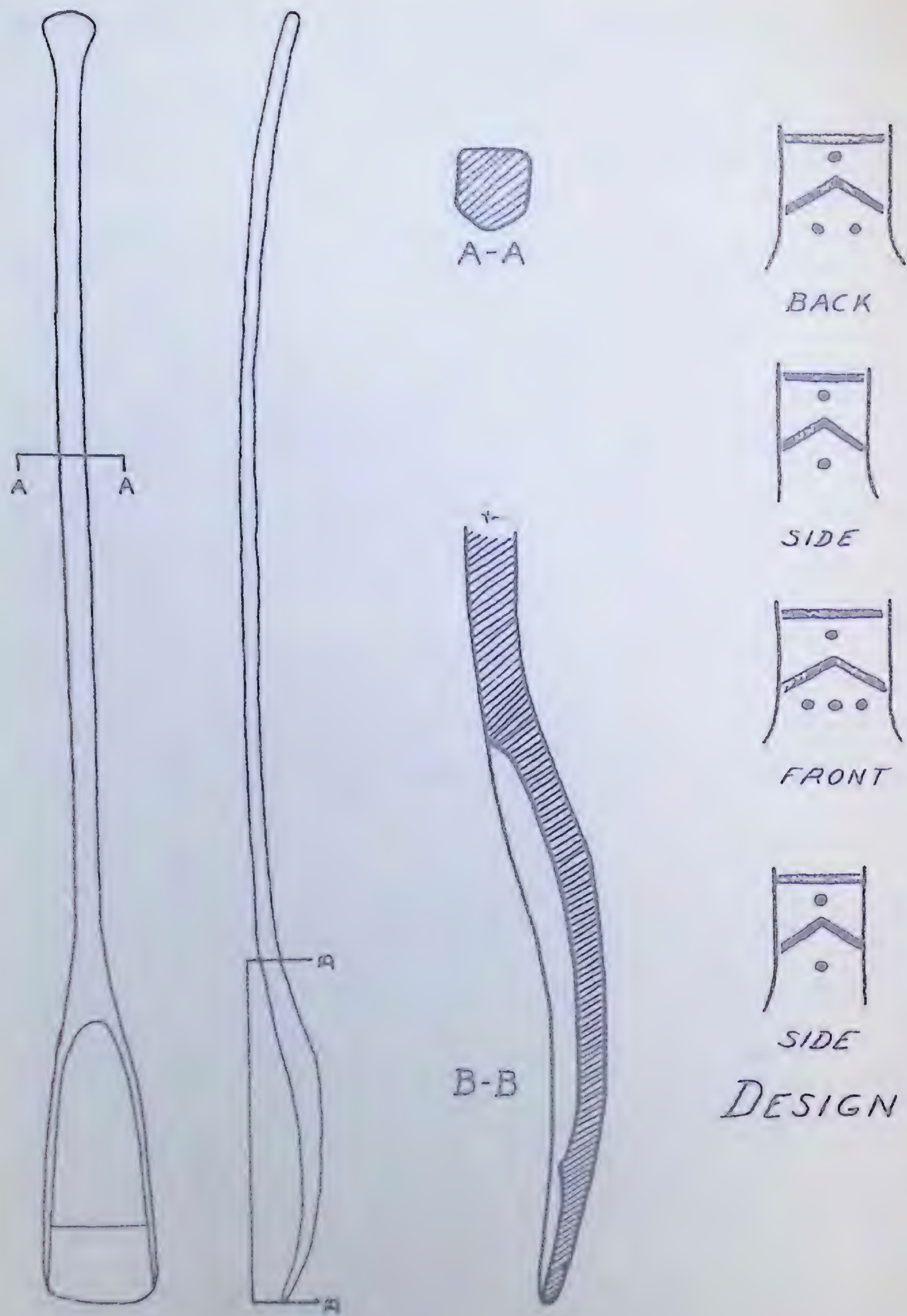


FIGURE 17. Snowshovel.

a bone point mounted on a wooden handle must have been used in the past. Today, a metal point, commercially obtained, is used. This was mounted at the end of a wooden handle about six feet long and several inches in diameter.

Before entering a shelter, it was important to remove the snow from one's clothing. A spruce bough, picked from the floor of the passage, was used for this, if the weather was not too cold. During very cold weather; when the spruce needles were frozen and easily broken, a chip of wood was used to scrape the snow from one's clothing.

Trade Items

Today, many implements and containers, in addition to those trade items already mentioned, are obtained from the trading companies. These consist of metal knives and spoons, pots, pans, and frying pans for cooking, pie tins for plates, cups, and twenty-pound lard pails for water and refuse. Forks are not used. There are also cloth duffle bags, burlap bags, and wooden chests. Metal knives consisted of hunting, butcher, kitchen, and jackknives. New handles were occasionally made for the kitchen knives from the tine of a caribou antler. The tine was removed by sawing and then split in half. Next, holes were drilled through the two pieces, and the tang of the knife blade was placed between the two halves. Nails were inserted in the holes, any excess length was removed, and the remaining portion was bent over.

CHAPTER THREE

Clothing, Bedding, and Personal Adornment

INTRODUCTION

Some form of full body clothing was always worn by the Mistassini Indian, since nudity was considered improper and protection from the winter cold and summer sun was desired. During the summer, children occasionally went swimming in the nude at some secluded spot.

In the past, clothing was made of skins. Today, most of it is obtained directly from the trading companies.

Bedding was meagre in the extreme, consisting of blankets purchased at the stores, rabbitskin blankets, hide mats, mattresses and pillows of local manufacture. As far as is known, beds were rarely used and then only at the village. Personal adornment was limited, but it must be pointed out that embroidery on moccasins and mittens, for example, was a form of adornment. Description of embroidery may be found in the section on clothing.

CLOTHING (in the past)

Clothing formerly consisted of breech clouts, leggings, and skin parkas for men. Women wore leggings, skin dresses, and parkas. In addition, rabbitskin 'socks,' moccasins, leg-skin boots, rabbitskin jackets, and skin caps were worn.

Breech clouts, leggings, skin parkas, skin dresses, and skin caps are no longer worn. Accordingly, only a limited amount of data could be elicited regarding them. A breech clout, presumably made of skin, was worn by the men. Cloth leggings were worn by both sexes, but undoubtedly these were originally made of skin. A piece of cloth of the proper width was folded lengthwise, and the long edges were sewn together. The material for the men's leggings was cut in such a way that a point was formed at the lower edge of the seam, and the seam and point were decorated with beadwork.¹ Leggings for men extended to the thighs or to just below the knees. Women² wore undecorated leggings of the same length. The seam was worn along the outside of the leg. The bottom of the leggings covered the tops of the moccasins, and the tops of the leggings were held in place with a string apparently tied to a belt. Presumably this latter statement refers to those leggings worn by the men, which extended to the thighs. The knee length variety may have been held in place with garters as are socks today.

Women were said to have had dresses made of caribou, 'moose,' and rabbit-skins, which extended to the calves of the legs. They may have been of the same style as cloth dresses described below. Speck (1930, p. 454-6 and Figures 123, 124; p. 453, 454) speaks of Mistassini women's dress of aboriginal

¹See Speck, 1930, Figure 122, p. 452, for illustrations of Mistassini leggings of this style.

²Speck said they reached just above the knees (1930, p. 456).

style as having separate sleeves. Yet he goes on to describe and to illustrate a modification of this style which is similar to the modern dress in many ways and does not appear, from the photographs, to have detachable sleeves although he states they have 'open arm spaces,' a short 'V' at the neck, and three-quarter length sleeves. It is perhaps likely that the aboriginal skin dress of the women evolved into the type reported by Speck and later into the ones of cotton seen at Mistassini in 1953-54.

Both men and women wore parkas of smoked caribou and 'moose' hide which reached to the thighs. These did not open down the front. The neck was closed with a drawstring, and the hood was trimmed with fur. There were 'buttons' at the wrist. This type of parka was described by a woman in her sixties. Sometimes, parkas (?) were made with the hair left attached. Summer caribou skins were preferred for these. An old informant thought that 'coats' might have been made of bear, beaver, or otter pelts. Caps were made from caribou and 'moose' hide.

Rabbit-skin 'socks,' moccasins, leg-skin boots, and rabbit-skin jackets were used in the past and were still in use in 1954.

CLOTHING (at present)

Moccasins

In the past, moccasins were probably worn throughout the year, although they may sometimes have been dispensed with in summer. Today, they are worn primarily during the fall, winter, and spring, and occasionally in summer if the ground is dry. A hunter wears out about ten pairs a year and a woman two pairs.

Moccasins were made of smoked caribou or moose hide. Caribou hide was preferred as it was considered more durable than moose hide, although it was much thinner. When moose hide was used, the thicker parts, such as the rump skin, were considered best. They were also occasionally made of bear skin with the hair either retained or removed. In the latter case, the hide was smoked. Those with hair were said to be good for wet weather. Moccasins were always made with the flesh side of the hide on the inside.

Moccasins were composed of several pieces: a bottom piece (sole and upper of one piece) and a tongue (a piece fitting over the instep). For winter use, they had a top or ankle piece of hide, today of canvas.

Moccasins were of six styles (Figures 18-23): 'rabbit-mouth,' 'caribou-tooth,' '*inAsIsIn*,' 'soled,' 'pointed-nose,' and 'puckered.' The 'rabbit-mouth,' 'caribou-tooth,' '*inAsIsIn*,' and 'pointed-nose' ones were remembered to have been in use sixty to seventy years ago, but, except for the last type, they are no longer worn. The 'rabbit-mouth' style did not gain favour at Mistassini and was seldom worn. Twenty-five years ago everyone wore the 'pointed-nose' type, but today it is only occasionally used for children's moccasins. The 'puckered' moccasin was rarely seen a quarter of a century ago, but it has recently come into common use. It was said to have been derived from Lake St. John. The 'soled' moccasin was said to be recent, but by 1953-54 it was no longer in use.

The distinction in the different styles of moccasins was found primarily in the construction of the toe. In all styles except the 'soled' and 'puckered'

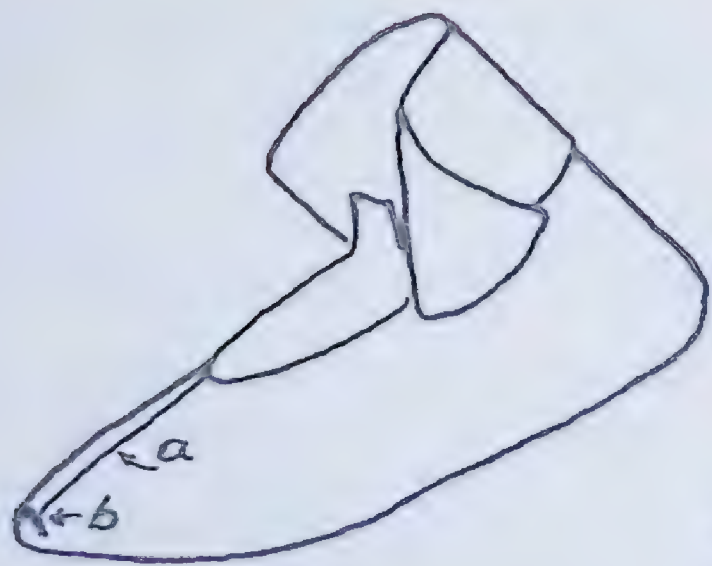


FIGURE 18. 'Rabbit-mouth.'

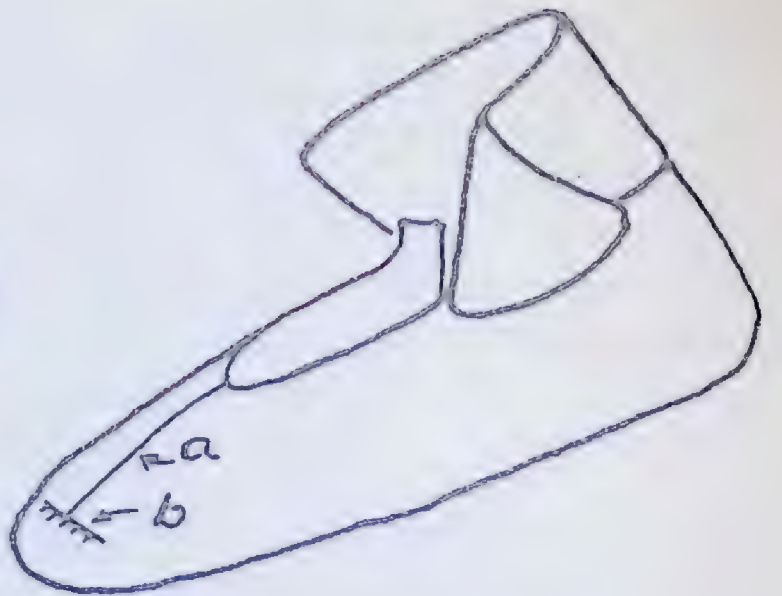


FIGURE 19. 'Caribou-tooth.'



FIGURE 20. 'inAsclsln.'

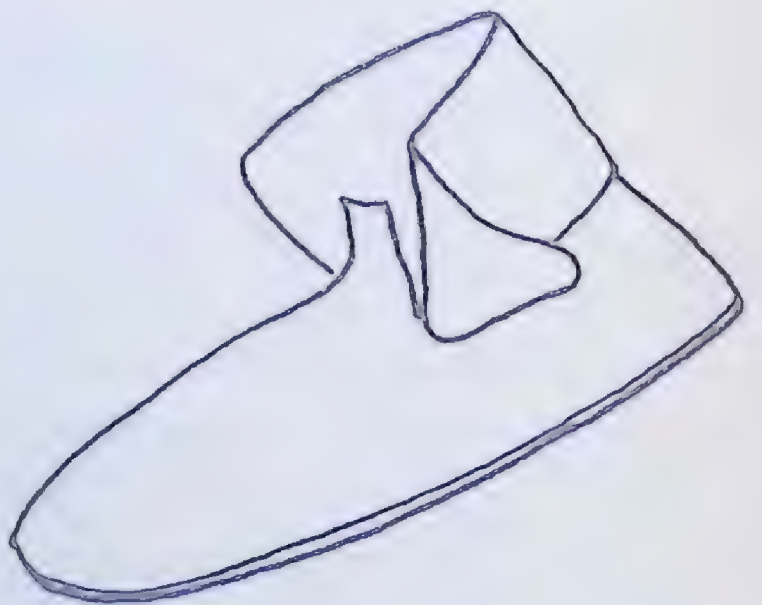


FIGURE 21. 'Soled.'



FIGURE 22. 'Pointed-nose.'

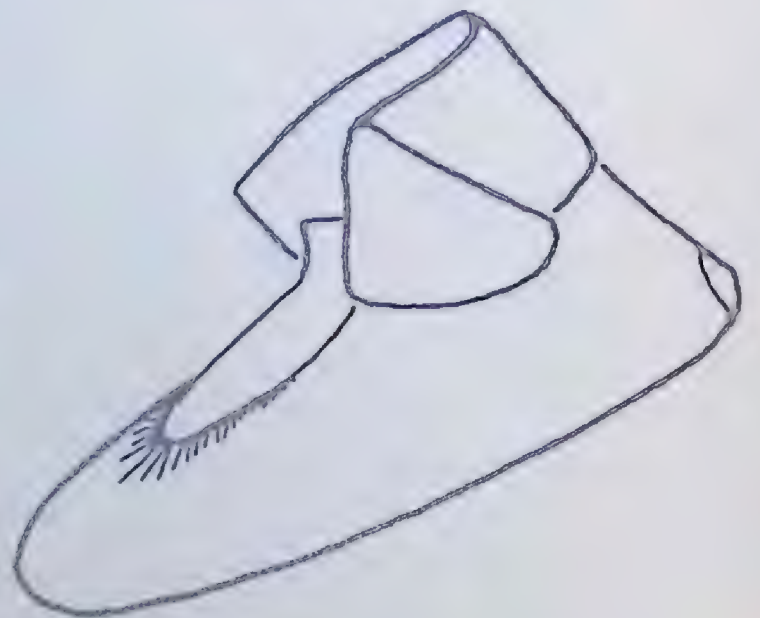


FIGURE 23. 'Puckered.'

MOCCASINS

moccasins there was a seam extending from the end of the tongue over the toes (Figures 18–20, 22, a).

The toe of the 'rabbit-mouth' style (Figure 18) was pointed. The seam from the tongue (a) terminated on top and near the end of the wearer's toes. Here it joined, at right angles, a very short gathered seam (b).

In the 'caribou-tooth' style (Figure 19), the seam from the tongue (a) terminated at a second seam which extended across the top of the toes (b) and was fulled in.

The '*inAsciIn*' moccasins (Figure 20) had a seam (a) from the end of the tongue which extended over the toes and continued for a short distance underneath the foot. There was no second seam across the toes.

In the 'pointed-nose' style (Figure 22), the seam (a) starting at the tongue joined at right angles a second seam (b) which extended across the front of the toes.

The 'soled' moccasin (Figure 21) had no separate tongue. A piece of hide was cut in the shape of a sole and sewn to the upper half of the moccasin, the seam extending around the edge of the foot. A single pair of these moccasins was made, as an example, by a woman who was approximately thirty-five years old. She claimed that when she was younger she had made many of them. No further evidence corroborating her statement was secured regarding this style, which at Mistassini would appear to be an anomaly, although a similar type is present among the Round Lake Ojibwa of northern Ontario (Rogers, Field Notes).

In the 'puckered' moccasin (Figure 23), there was no seam extending over the toes. The bottom was gathered where it joined the tongue.

In all types of moccasins, the heel was formed with a vertical seam extending up the back of the moccasin. In 'soled' moccasins this seam joined the sole at right angles; in the other types, there was a short horizontal seam at the base of the heel. In the 'puckered' and 'pointed-nose' types, which were still being made in 1953–4, a backstay was left at the rear of the sole (Figure 24, a). This was folded up to cover the lower end of the vertical seam and sewn into place.

The tops of moccasins were made of either hide or canvas. Canvas was preferred since it conserved hide and lasted as long as the bottoms. A rectangular strip (Figure 24) was sewn to the upper edge of the bottom with a running or overcast stitch. The ends overlapped in front of the ankle. A long strip of thong was inserted through holes cut in the upper edge of the bottom, the ends emerging on either side of the tongue. The thong was wrapped about the wearer's ankle to hold the top of the moccasin in place (Plate IXB).

All seams, with the exception of the one which secured the backstay of the 'puckered' and 'pointed-nose' moccasins made at present, were sewn with a running stitch. The raw seams were on the inside. Exceptions to this were the horizontal toe seam in the 'caribou-tooth' style and the seam joining the tongue and bottom of the 'puckered' moccasins. These were on the outside. The backstay on these two types was hemmed with the seam on the outside of the moccasin.

A reinforcing stay was frequently employed. It consisted of a strip of hide placed between the pieces to be sewn together. The edges of the three pieces

were flush. After stitching was finished, the work was turned right side out, and the uneven edge of the stay was trimmed close. A stay was often used for the horizontal heel seam and the seam between tongue and bottom on all but the 'puckered' moccasins. It might be used on all moccasins for the seam between the tops and bottoms and the one about the sole of the 'soled' moccasins.

The steps followed in the manufacture of the 'puckered' moccasin were substantially the same for several women observed at different times (see Figure 24 for pattern). The tongues were cut first. The size of the first tongue was gauged by eye and used as a pattern for the other. One informant, making moccasins for a child, used a cardboard outline of the child's foot as a guide. Occasionally, the tongue piece was backed with cloth, the two pieces being sewn together with a sewing machine. The cloth backing helped to ensure that the tongue would retain its original shape through repeated wettings and dryings.

The tongues were placed at the centre of an untrimmed bottom piece in order to gauge the proper size and proportion of the latter. The bottom pieces were then placed together and trimmed along the sides and toe; the ends of the pieces which would later form the heels were not trimmed. Next, each bottom was folded in half lengthwise and trimmed to ensure a symmetrical curve at the toe.

One informant habitually thinned the toe edge of the bottom piece on the flesh side (the inside of the moccasin). She held the piece of hide against a smooth surface such as a tin can or a glass jar and shaved the edge with a knife blade held almost parallel to the surface. This was done to facilitate gathering when the piece was sewn to the tongue. Three other informants omitted the thinning, but they first moistened the area to be gathered.

Next, the tongue was tacked to the bottom piece at the toe and each side to ensure that the gather would be even. Following this, the tongue and bottom were sewn together. The sewing was done from the outside of the moccasin in such a way that the puckers were deepest at the centre of the toe, becoming smaller toward the sides. One informant usually inserted a piece of heavy thread through the finished puckers of the toe. This was done by turning the moccasin inside out and working from the inside. She stated that this kept the puckers from losing their shape.

When the tongue and bottom had been joined for one moccasin, the other was done similarly. The finished puckering on each moccasin was then smoothed and flattened by moistening the area and pressing it against the operator's knee with the hands or an unopened pair of scissors. As the puckers were treated, the moccasin was flattened so that a fold was produced about the edge of the foot. This fold and the gather were worked with the hands to increase flexibility. The fold was often softened and flattened with the operator's teeth.

Next, the heel was trimmed and sewn. The vertical seam was stitched from the inside. The backstay (Figure 24, a) was then trimmed to a small half-circular flap, which was sewn to the heel from the outside over the lower end of the vertical seam. Sometimes the moccasin was turned inside out, and the horizontal heel seam was hemmed. Following this, tops were attached.

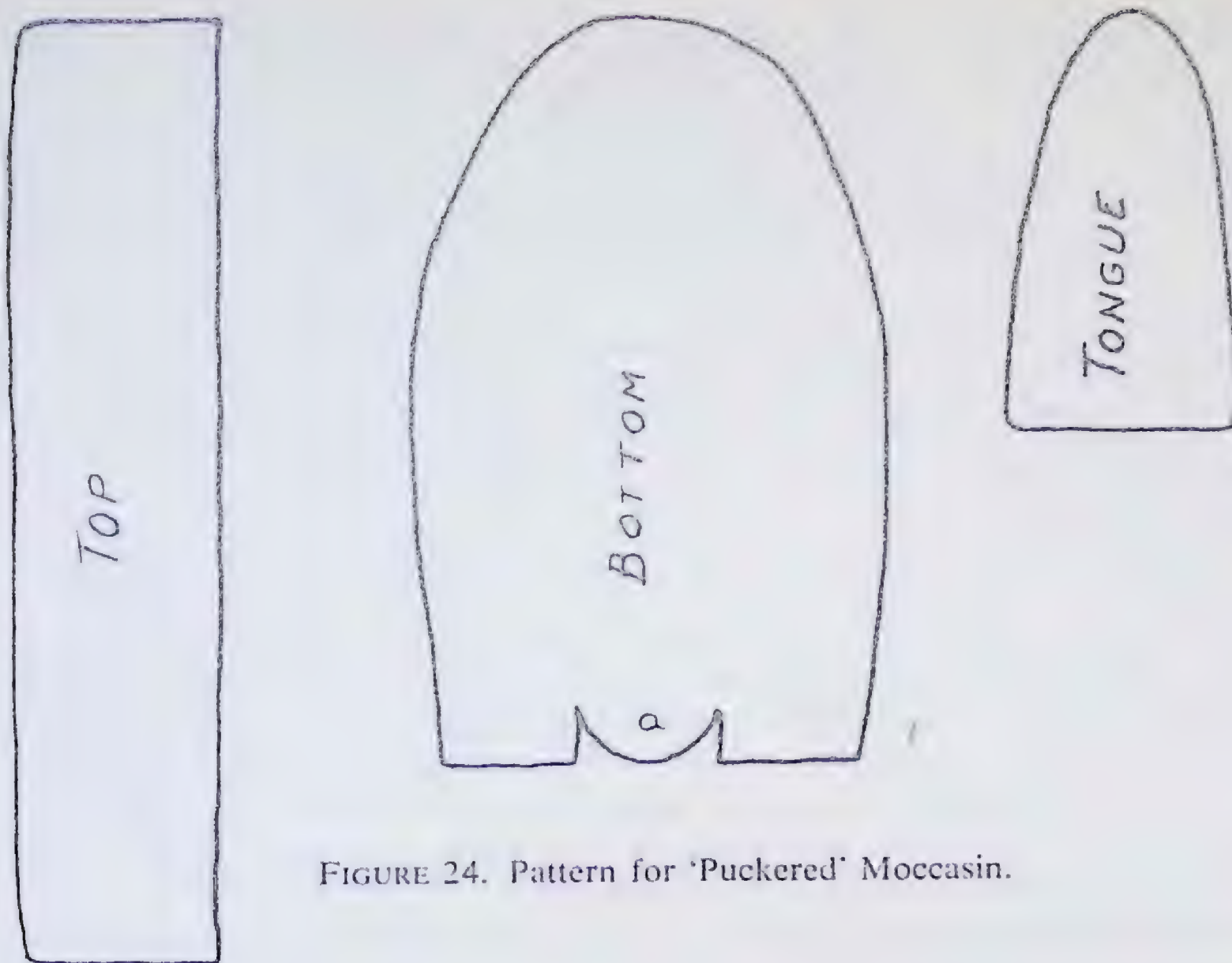


FIGURE 24. Pattern for 'Puckered' Moccasin.

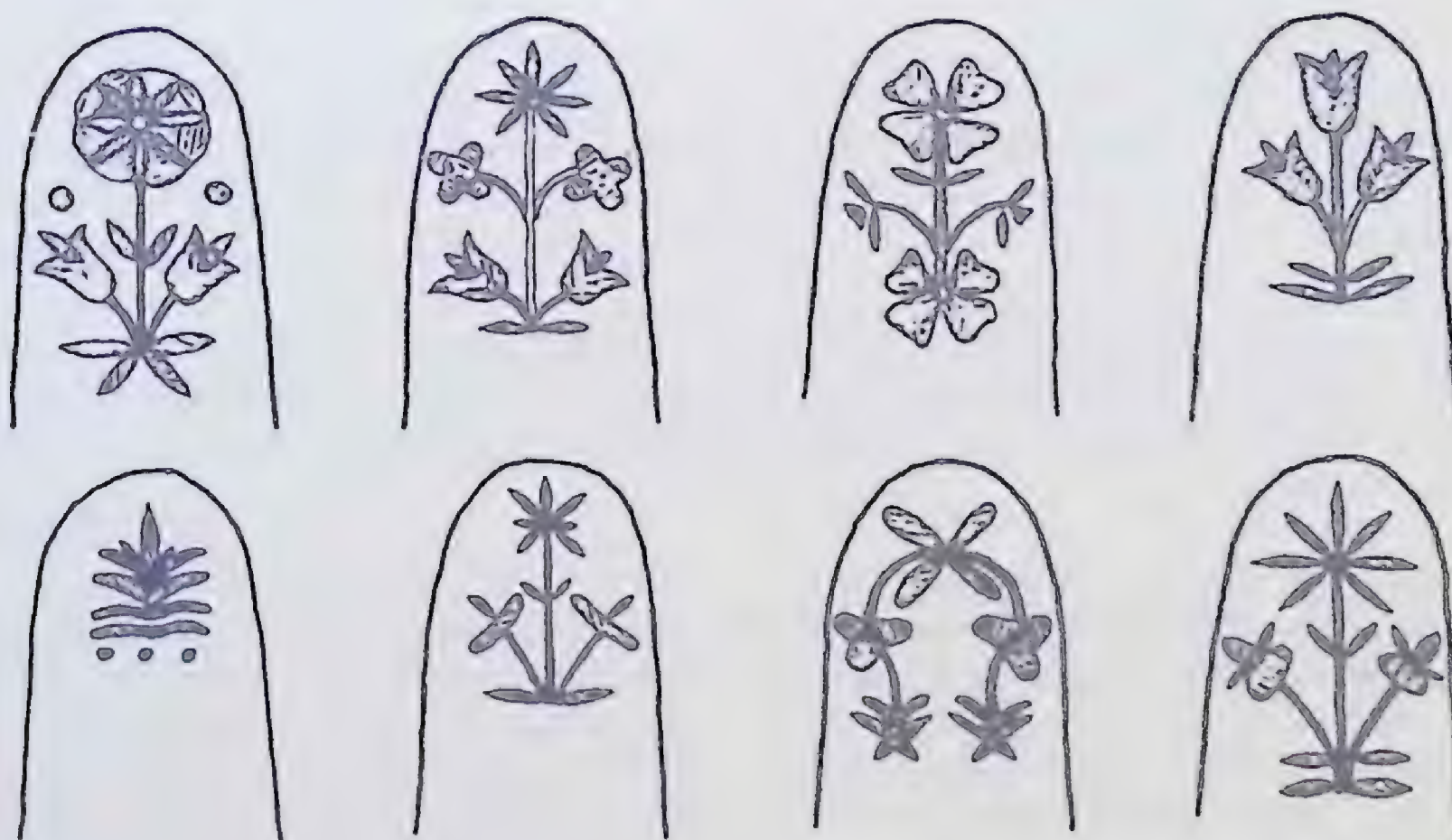


FIGURE 25. Moccasin Designs.

Moccasins with tops were seldom decorated. Those made without tops, on the other hand, were frequently ornamented. The decoration was restricted to the tongue, and the designs were invariably floral and symmetrical (Figure 25 and Plate XA), but they showed little of the typical double-curve motif. The design was identical on each tongue. Only one asymmetrical pattern was seen in which the design on one tongue was a mirror image of that on the other.

Patterns for the design were cut from paper or thin birchbark if the former was scarce. The usual method was to make a stencil by repeated folding and cutting. Occasionally, the various elements of the design were arranged on the moccasin tongue. The design was lightly outlined on the hide with a red or ordinary pencil.

Designs were embroidered. The sewing was done with steel needles, and both silk and cotton thread were obtained from the trading companies. Generally, the tongue was embroidered before it was backed with cloth and sewn to the bottom piece. The designs were usually done with a chain stitch, but a satin stitch was sometimes used for leaves and flower petals. Borders at the edge of the tongue were done in an outline stitch. Sometimes the seam between the tongue and bottom was decorated with a catch stitch. This might be done twice in two colours. In the 'soled' moccasin, a tongue was outlined with a catch stitch done twice.

Beadwork, although said to have been common formerly, was rarely seen. One informant reported the use of dyed porcupine quills for the decoration of moccasin tongues.

New moccasins were preferred for snowshoeing since the bottoms had not yet been worn smooth. Their slightly roughened surface reduced somewhat the tendency to slide on the snowshoe lacings. Women and children reserved their new moccasins for extended periods out-of-doors, wearing old ones about camp. Men usually removed theirs when they returned to camp in the evening. Then, only stockings were worn.

Formerly, 'pointed-nose' moccasins for children from about the age of four to six were specially prepared for snowshoeing. A piece of thong was passed through the moccasin on either side of the toes for tying the moccasin to the snowshoes.

Leg-Skin Boots

Leg-skin boots were worn during the spring for protection from melt water. A pair of moccasins was usually worn over them. The boots were made in several ways from the hide of caribou and moose, taken from the region of the hock. One way was to remove the hide from the leg of the animal like a sock. The distal end was then closed by sewing in such a way that the seam extended horizontally across the front of the toes. The wearer's heel fitted into the bend of the hock. Another method involved the use of two pieces of skin taken from the same region. They were sewn together so that the seam extended across the front of the toes and along either side of the foot. In a third method, the skin from the region of the hock was sewn into a tube. Then the distal end was sewn together as with the first type described. Gen-

erally, the hair was left attached to the hide. At other times, it was docked with a knife before, or sometimes after, the boots were sewn together.

The finished boot extended only to the wearer's ankle. The boots were lengthened with a rectangular piece of canvas first sewn into a tube and then attached to the top of the boot. Tops for small girls generally extended above the knees where they were secured with a strip of canvas or string passed about the leg and tied. Tops for men and boys reached to just below the knees, and a garter or a strip of canvas held them in place. The tops for women did not extend quite so high as those for men. They were not much higher than a regular moccasin. The boots were sewn with sinew in the same way as leg-skin bags (*see Skin Containers*). The boots were dyed by soaking them in a mixture of boiled alder bark or spruce cones. If cones were used, the boots were submerged under them. Sometimes birchbark was used. The bark was crumpled and placed in warm water, and the liquid was then rubbed on the flesh side of the boot.

After being dyed, the boots were turned inside out, stuffed, and hung outside the lodge to dry, but only partially; otherwise they would become stiff. Sometimes they were frozen and left in this condition for a time. Then they would dry soft after being wet.

Another type, formerly used, was a sealskin boot. These boots were made by the Eskimo and imported by the Hudson's Bay Company for sale to the Indians of Lake Mistassini. Introduced approximately twenty to forty years ago these boots came from the Eastern Arctic, possibly at first from the Labrador Coast.

When the Mistassini Indians were trading at Rupert's House, they obtained sealskins there, which, in turn, had been obtained from the Eskimo. They made their own boots from these. From the meagre information obtained regarding these, it appears that they were made in the same way as the native leg-skin boots.

'Socks'

'Socks' were made from green rabbit skins. The uncut hide, fur side out, was placed under the wearer's foot. The end was folded up over the toes, and the sides were folded up along the sides of the foot. Socks were held in place by the moccasins. Muskrat skins were formerly used by children.

Rabbit-skin Jackets

Rabbit-skin jackets at the time of field-work were worn only by children. They were made in separate pieces which were later sewn together; each piece was woven in the same manner as were rabbit-skin blankets (*see Rabbit-skin Blanket*).

The body section was woven in either one or two pieces. If two rectangular pieces were used, they were first sewn together along two parallel edges. Openings were left for arm holes. Next, they were sewn together along one end leaving an opening for the neck. If one piece was used, holes were left for the arms as it was woven. The piece was then folded in half, and the edges were sewn together. Sleeves and hood pieces were made separately, sewn together, and attached to the body. All sewing was done with strips of hare skin.

Some jackets opened down the front. They were closed with pieces of string attached to either edge and tied together.

Mittens

Mittens are worn at the present time (Plate XB). They have not been discussed under former articles of dress since there is some reason to suspect they were not aboriginal. For instance, no mention of mittens has been found in the *Jesuit Relations*, when referring to the clothing of the Montagnais. A man needs about two pairs every winter.

Mittens were made from caribou or moose hide, which was always smoked. They generally consisted of six pieces, but sometimes only four or five (Figure 26): one each for the palm and back of the hand, one each for the inside and outside of the thumb, and one each for the inner and outer parts of the cuff. Very rarely, the entire back of the mitten was made in one piece. In some cases, the inside of the thumb formed a single piece with the palm of the mitten (Figure 26). The other side of the thumb was made with a separate piece which extended to the wrist seam and sometimes beyond it. In those mittens in which the thumb was made separately in two pieces, a slit was cut in the palm of the mitten parallel to the wrist seam. The thumb was inserted and sewn in place. All sewing was done with a running stitch on the wrong side of the mitten.

The position of the thumb in relation to the inner edge of the mitten varied slightly. The outer edge of the thumb might be almost at the edge of the mitten or anywhere up to nearly an inch from the edge. One informant stated that this variation in thumb patterns and positions was an attempt to get a better fit. The same informant also said that the mittens were imperfect copies of those available in the trading companies.

The seams at the sides of the hand and cuff apparently always had a reinforcing stay made from a strip of hide. This was usually trimmed to leave a fringe along the radial edge of the cuff on the outside of the mitten. Elsewhere, it was trimmed even with the edges of the mitten. Fox, marten, mink, or beaver skin was usually used to trim the edge about the opening.

A design was generally placed on the back of the cuff. This was usually geometric, made of coloured bias binding sewn in place by machine. Occasionally it was an embroidered floral design (Figure 27). Infrequently, designs were embroidered on the back of the hand as well. The same stitches were employed as on moccasins.

Within the memory of middle-aged informants, mittens were sometimes made of otter and bear skins. The back of the hand and thumb and the two cuff pieces were made of otter skin from which the fur had not been removed. The palm and palm side of the thumb were of smoked moose (?) hide. Occasionally, bear instead of otter skin was used for mittens worn by old people.

Mittens were lined with woollen cloth. The lining was attached only at the edge of the cuff, so that it could be pulled inside out when the mittens were drying. A hide loop was sewn to the radial side of each cuff.

Mittens were joined in pairs by a plaited wool cord or a strip of hide, slightly shorter than the armspan of the wearer. The ends of the cord were tied to the hide loops on the cuffs, and the cord was worn over the shoulders outside the jacket. Occasionally for children, another cord crossed the chest

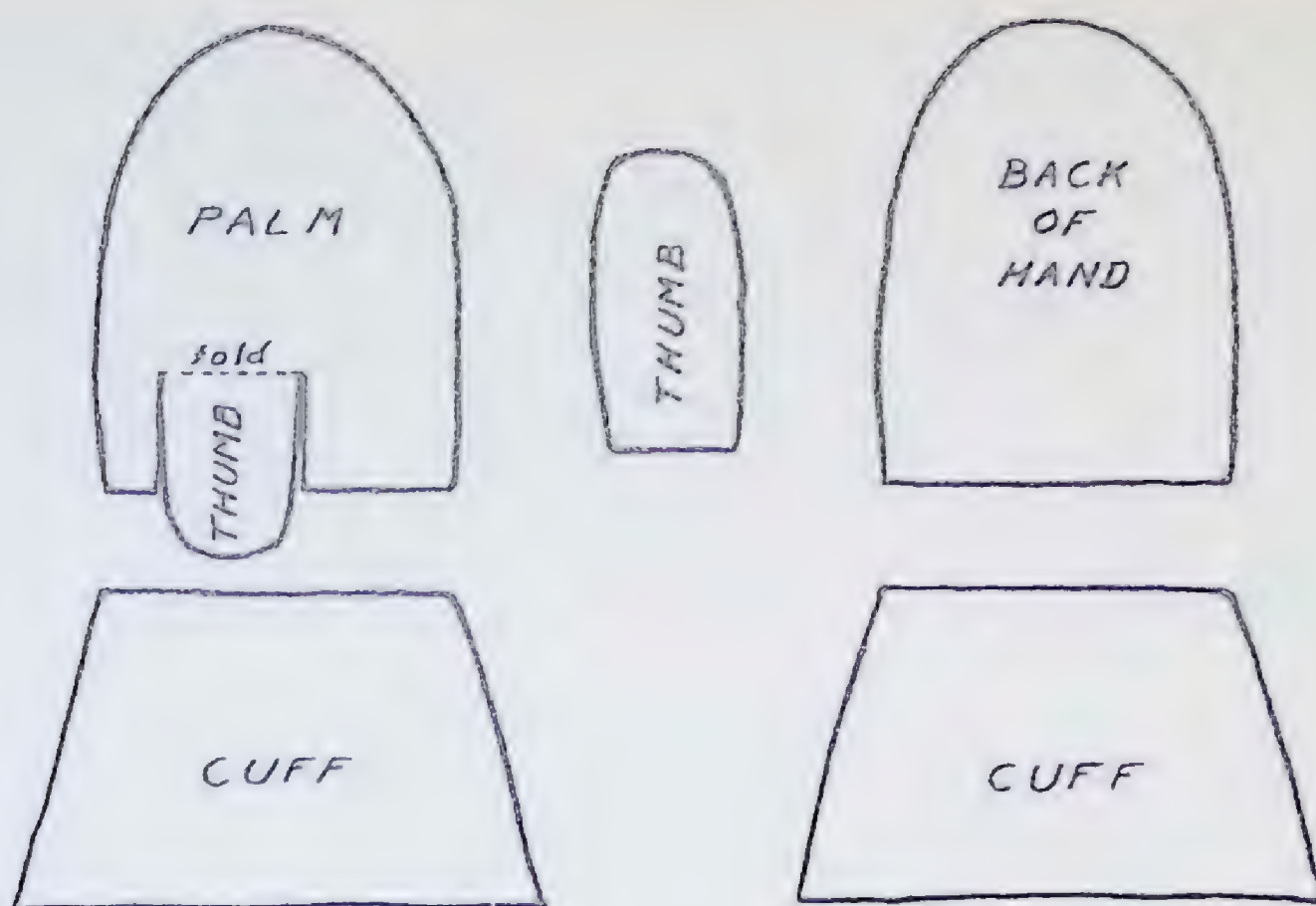


FIGURE 26. Mitten Pattern.

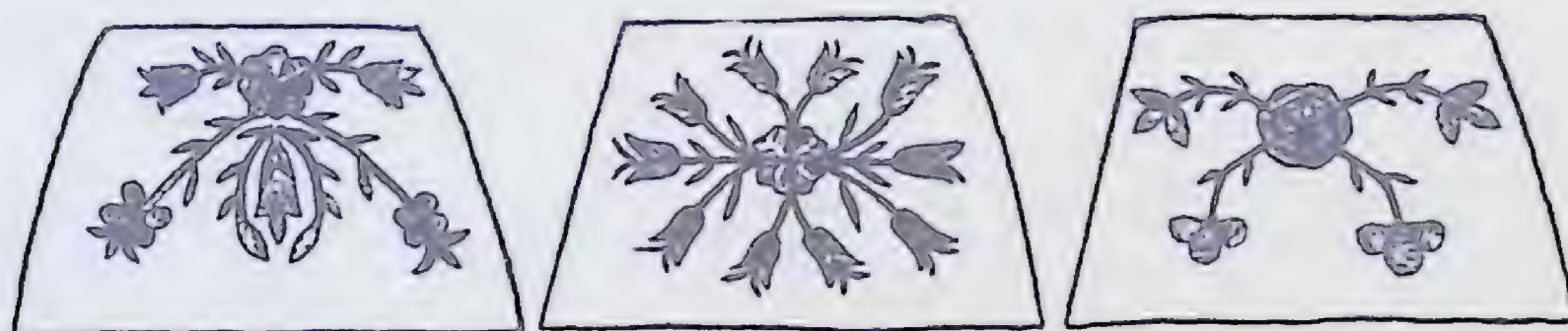


FIGURE 27. Mitten Designs.

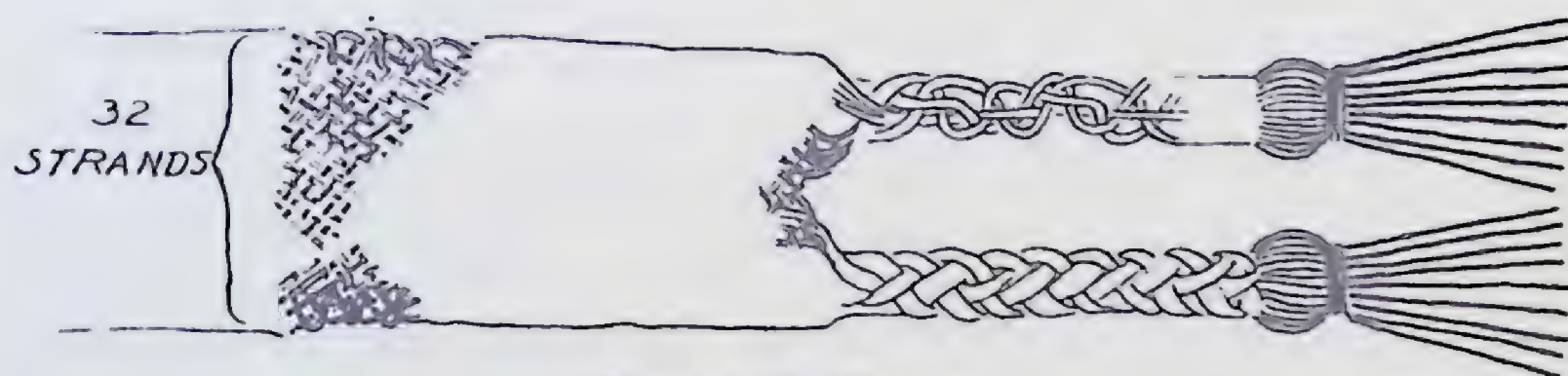


FIGURE 28. Garter.

and was tied to the mitten cord at either side to prevent the cord from slipping down the child's back.

For additional warmth, mittens were sometimes stuffed with feathers, for example those of ptarmigan.

European Clothing

In recent years, the Mistassini Indians have adopted Western clothing. As previously mentioned, they have retained moccasins, leg-skin boots, and rabbitskin jackets.

Men and boys wore two-piece heavy underwear, cotton or woollen trousers and shirts, knee-length woollen socks (sometimes knitted by the women), sweaters, and wool jackets. Garters were used to hold up socks and the tops of leg-skin boots. Plaited (Figure 28) from strands of coloured yarn to form a strip about 40 inches long and an inch wide, they were decorated at the ends with tassels. Duffle socks were made from heavy blanket material (duffle) obtained from the stores, although the expense prohibited extensive usage. Several patterns were used, but the only one observed in detail was identical with that for 'soled' moccasins. Headgear consisted of wool caps for winter and wide-brimmed hats and caps for the rest of the year. Western footwear comprised leather or rubber boots, the most common type being a boot with rubber bottom and leather top. These were worn primarily during the summer and fall and for spring travel.

Women and girls wore woollen underdrawers, stockings, slips, and home-made one-piece dresses and blouses (Plate XIA) of cotton or woollen cloth. The dresses had three-quarter-length sleeves, and the hemline extended below the knees. The neck was high with a short slit down the front for several inches. Jackets and sweaters were also worn. In addition to long stockings, calf-length woollen socks were worn, held up with a strip of canvas or string tied about the leg. Footwear was generally the same as that for men. Brightly coloured woollen berets were the characteristic headgear of women and girls, and a scarf might be tied over the beret for extra warmth in winter. One informant remembered having seen a tuque from Pointe Bleue, but he stated that this type of hat was never worn at Mistassini.

There was no great difference in the kind of clothing worn in summer and winter, only a difference in the amount of clothing needed for cold weather. In winter, men sometimes added a second pair of trousers, usually of cotton, as a protection from the wind, and women and girls sometimes wore woollen slacks over their dresses when they were outside for extended periods. Occasionally, a beaver pelt was placed at the small of the back for warmth. Dark glasses were obtained commercially and worn primarily during the spring when the glare was most intense.

In general, children's clothing is the same as the adults' but smaller. Boys sometimes wore suspenders, either obtained from the trading companies or made of moose hide. Very young children often wore overalls instead of trousers; even small girls wore them, pulled over their dresses when they were to be outside for long periods. Girls up to the age of about four years wore home-made cloth bonnets with wide brims as protection from the sun in summer and especially in the spring. Babies wore fitted caps tied under the chin. Infants about a year old, when playing inside the lodge, were sometimes dressed in only a short dress or shirt and no diaper.

Moss-Bag

Infants under a year old were generally kept in a 'moss-bag.' From a year to a year and a half, babies were only placed in a moss-bag for sleeping and transportation. The cradle board was said not to have been employed although it was known; however there is one at the National Museum of Canada listed as coming from Mistassini (Plate XIB).

Sphagnum moss, dried and cleaned, was used as an absorbent in the moss-bag. It was collected, cleaned, and then stored in bags. In winter, it was warmed before being used. After a baby was six months old, the moss was placed directly against the skin. The diaper for a year-old baby consisted of a rectangular cloth on which sphagnum was evenly distributed to within several inches of the edges. The baby was laid on his back on this, and the cloth was folded over him from the sides and between the legs. It was pinned securely at the navel and in each groin. A very young baby (the one observed was three days old) was diapered somewhat differently. A second cloth was placed over the moss so that it was not directly in contact with the baby's skin. The sides were folded over the infant's legs and abdomen. More moss was placed outside the cloth in the hollow between its legs. The diaper was not brought up between the legs nor was it pinned.

The baby clothed in diaper and dress was laid on several flannel or cotton cloths, which were folded over him from the sides and feet. The cloths, often decorated with embroidery, extended for about a foot beyond the baby's head.

The baby was next secured in the moss-bag which was roughly a rectangular piece of heavy cloth, such as denim, rounded at the lower end. Hide loops were sewn to the long sides and the rounded end, approximately two inches apart. A long strand of hide was inserted through the loops and tied at the two corners. Attached to it by a lark's head knot at the centre of one side was a long 'lacing' strand.

Wrapped in blankets and cloths, the infant was placed on its back at the centre of the cloth forming the bag. The edges of the cloth were folded over the baby and then laced together. The lacing proceeded from one side, where the 'lacing' strand was attached, toward either end of the bag. One end of the strand was employed to lace the top half first, and the other end the bottom half.

The moss-bag was stiffened at the back with bark placed inside. Today, a piece of tarpaulin, folded several times, is used. For transport, a strap was attached to it near the top at the rear, and the baby was carried tump-fashion on the mother's back. The projecting ends of the cloths in which the baby was wrapped could be folded over the infant's face for protection either when travelling or in camp.

Furs were used for extra warmth. Formerly, for travel in very cold weather a bag made from two small beaver pelts was used, or one small beaver pelt approximately the size of the moss-bag might be used as a lining. In addition, a hare skin, lined with cloth sewn to the skin side, was folded over the baby's feet and lower legs. One informant stated that fox skins were also used at the infant's feet.

BEDDING

Several items, both aboriginal and borrowed, were used for bedding.

Ground Sheet

Customarily, bear, moose, or caribou hides were laid directly on the spruce boughs as a 'ground sheet.' The skins were fleshed but not dehaired. A bear skin was not supposed to be used for one year after the death of the bear.

In a case observed, it was used after nine months. Occasionally, the hides were replaced by mattresses, which consisted of a canvas bag stuffed with duck feathers or moose or caribou hair.

Rabbit-skin Blankets

Several sizes of rabbit-skin blankets were in general use. The largest comprised one to two hundred skins and was used by three people.¹ Smaller blankets of fifty to sixty skins were used by one or two people. A blanket was said to last for six years or more.

Rabbit-skin blankets were woven of narrow, twisted strips of hare skin on a three-pole frame. Two poles were placed parallel to one another at a distance equivalent to the intended width of the blanket. Near one end of the poles, a third pole was tied at right angles. This end of the frame was elevated several feet above the floor or ground, either by tying it to two vertical posts or by leaning it against the wall of a lodge.

A selvage string was attached to the three poles of the frame along the inside but not across the open end. It was secured with a string loosely wrapped about the poles and selvage. One end of a strip of skin was tied to the selvage at the upper left-hand corner of the frame. Work was then begun at this point and proceeded to the right, looping the skin about the top selvage (Figure 8) until the opposite side of the frame was reached; here the strip of skin was secured to the side selvage. The direction of weaving was now reversed until the left side was again reached. A coil netting technique (Figure 8) was used (Haury, 1950, Figure 95, a, p. 399) in which the strip of hide was conveyed on a wooden or bone needle (*see* Hide and Cloth Working Tools). The process was continued until the bottom of the frame was reached; here the ends of the side selvage were doubled over several strands of hide and tied to themselves. This prevented the loops along the side selvage lines from slipping off. The string holding the selvage to the frame was now cut, and the blanket was removed. The thickness of the blanket was determined by the width of the strips, and the weight depended on the degree of tension employed in weaving. The time required to weave a large blanket was approximately six days. After it was finished, it was hung outside the lodge to dry.

Occasionally, a piece of canvas was attached to the upper surface of the blanket and a flannel sheet to the bottom. In this way, its warmth was increased, and at the same time it was protected against wear.

Woollen Blankets

Woollen blankets, obtained from the trading companies, were used in conjunction with rabbit-skin blankets. Often they were carried, to the exclusion of the latter, when the men were hunting or trapping away from the base camp for more than a day.

Pillows

Small pillows, stuffed with duck feathers, were made. They were used as back rests during the day as well as for sleeping. The men often carried them when away from the base camp.

¹Speck says that one hundred skins were required (1930, p. 454).

All bedding, except pillows, was hung outside the lodge on bedding racks (*see Camp Equipment*) during the day. In stormy weather, it was covered with a piece of canvas or stored in the supply tent (*see Camp Equipment*).

Hide Mats

Small hide mats were used to sit on. Made from moose head skins or from several caribou head skins sewn together, they were commonly used during the winter moves when temporary camps were erected on the snow. The caribou skins were sewn when damp with sinew in the same manner as leg-skin bags. The mats were stretched on a frame similar to those used for beaver pelts (*see Hide and Cloth Working Tools*). Often a beaver pelt frame was used. After the hide was stretched, the flesh side was scraped lightly and washed with soapy water. The mat was then placed outside to dry, after which it was ready for use.

Hammocks

Hammocks (Figure 9) were employed for children, generally under two years of age. They consisted of a pair of spreaders (a, a'), a long rope or thong (b), and a blanket (c). The spreaders were about 10 inches long, 1 inch wide, and $\frac{1}{2}$ inch thick. A hole was drilled transversely near either end of each piece of wood. The spreaders were placed parallel to each other and about forty inches apart. A long strip of hide or rope was inserted through the holes of each piece. The ends extended beyond each spreader for about three feet. This arrangement was suspended between two trees or across one corner of the lodge, and the rope extending beyond each spreader was tied to the trees or to the nails in the walls of the lodge. A small blanket was suspended between the ropes, and on each side the blanket was passed under the rope and then folded over it so that the edges met at the centre. The weight of the child prevented the blanket from slipping off the ropes. Occasionally during summer a wooden hoop was placed upright at one end of the hammock. A cloth was draped over this to protect the child's head from the sun and flies.

Spreaders were often painted and carved. Usually, the head spreader (a) had an incised design carved on the widest surface. Sometimes, spreaders were improvised by inserting two pieces of wood of the proper length between the ropes after a blanket had been arranged.

PERSONAL CARE AND ADORNMENT

There was a certain amount of individual variation in regard to personal care and adornment. Neatness of appearance was valued by most. Both sexes, children included, generally washed their faces and hands with soap and water at least once a day.¹ Men often neglected this when they were away from camp on hunting or trapping trips.

Adults trimmed their fingernails with a knife or a pair of scissors, generally cleaning them at the same time. Children and adolescents, particularly boys, usually neglected this, allowing their fingernails to grow until they broke. No care was taken in the disposal of nail parings.

¹Formerly some hunters used the hind leg of a hare with which to wash their faces (Speck, 1930, p. 447, 449).

Some individuals and families used tooth brushes, but in general teeth were not brushed. Small twigs, however, might be used as toothpicks. Children's loose teeth were pulled. This was done in the belief that the permanent teeth would then grow in straight.

Men were usually clean shaven, although a few wore moustaches. The beard was sparse, and shaving was irregular. The Mistassini Indians took great pride in their hair. It was not washed, but both sexes, women much more regularly than men, combed their hair carefully with water once a day. A fine toothed comb was used so that lice were kept at a minimum. A comb cleaner was made from a porcupine's tail.

Formerly, men were said to have worn their hair long, but no details could be secured as to the specific style. Women had very long hair. It was plaited in two braids which were wrapped about the head and secured at the back of the neck. This style is occasionally seen among the old women today. Men and boys at present wear their hair in Western fashion. The women generally acted as barbers during the winter; a few men had a reputation for skill at this job, and these individuals were sought by other men during the summer. The individual who was going to have his hair cut would sit on a low seat such as an overturned pail. The barber would stand in front of him. To have his hair cut at the back of his head, the individual leaned forward with head lowered.

Women usually wore their hair shoulder length, parted on the side and secured with a clip bought from the store. Girls and some women wore their hair cut in a bob reaching only to the ear lobes. Bangs were occasionally seen on small girls but never on older girls and women. Sometimes, the hair was curled artificially. One woman sometimes braided a portion of the hair growing in front and pinned the braid across her forehead.

Thick black hair was highly desirable. Whenever bear grease was eaten, a little was first rubbed over the hair; women groomed their small children at the same time. Bear grease was said to increase the hair's blackness and glossiness.

Tattooing occurred irregularly among girls. It was done by one girl to another with a needle threaded with a sooty string. Only a few cases were observed. All of these exhibited four to six dots placed close together on the back of the left hand. A middle-aged informant stated that adults laughed at this practice and that when a girl was tattooed she tried to hide the marks from her mother.

Clothing was frequently laundered. Formerly lye was made from wood ashes, but since the details of the process were recorded in the native language it is difficult to understand them. Apparently the ashes were placed in a can, and water was poured over them. Later the liquid was frozen, and then pieces were broken off when needed. Today, soap and lye are purchased from the store for laundry and washing.

CHAPTER FOUR

Equipment for Securing Native Foods and Furs

INTRODUCTION

As has been pointed out, the Mistassini depended almost entirely on hunting, trapping, and fishing for a livelihood. Accordingly, devices for the capture of game were of vital importance. In this report no attention is paid to the technique of capture; only the equipment employed is described.

HUNTING EQUIPMENT

Hunting equipment formerly consisted of the simple bow and several types of arrows; the cross-bow; two varieties, and probably more, of deadfalls; several types of snares, nets, and slinging devices. Also employed were moose calls, blinds, and decoys. The latter may be a relatively recent acquisition from Rupert's House. Although this does not represent a great number of distinct pieces of equipment, all were utilized in a variety of ways depending on the species of game sought and the time of year. Today, in addition to the above equipment, the Mistassini use rifles, shotguns, and steel traps extensively.

Bows

In the past, the bow and arrow were used at least for caribou, beaver, otter, loon, duck, ptarmigan, Spruce Grouse, muskrat, and hare. Today, bows are mostly boys' toys, although they may on occasion be used by men for hunting if ammunition has been exhausted. The Mediterranean release was used, but boys occasionally employed the secondary release.

The bow stave (Figure 29) was made with a crooked knife from one piece of wood, either larch or black spruce, and it had no backing. The back of the stave was either flat or slightly convex, but along the belly a slight ridge extended almost the entire length of the stave. The sides of the stave were flat. The grip was somewhat narrower and thinner than the limbs. One or two notches were cut near the end of each horn, at the sides, for the attachment of the bow-string.

Specimens seen ranged in length from $38\frac{1}{8}$ inches to 50 inches. The former had a width of nearly an inch and a thickness of $\frac{1}{2}$ inch at the grip; a width of $\frac{1}{8}$ inch and a thickness of $\frac{1}{4}$ inch at the centre of the limbs. The horns were about an inch wide and from $\frac{1}{8}$ inch to $\frac{1}{16}$ inch in thickness. The notches were $\frac{1}{4}$ inch deep and $\frac{1}{2}$ inch from each end.

The bow-string was made of two twisted strands of moose or caribou hide. Today, cord is often used, and on one specimen examined the bow-string was a 2-ply S twist (Osborne, 1954, p. 1093-1101).

Cross-bows

Cross-bows were of two sizes; a large one for hunting, especially ptarmigan and Spruce Grouse, and a small toy bow used by the children in the 'caribou game' (see Recreation and Amusements). The hunting cross-bow is no longer in use, but the small cross-bow is still occasionally used by the children. It is impossible to say whether or not the cross-bow was aboriginal. Flannery suggests that it might be because of its wide occurrence in the North (1939, p. 70). On the other hand, Clark mentions that the cross-bow and blunt arrows (bolts) were used in Finland as late as the nineteenth century for killing squirrels. The blunt arrows prevented damage to the pelts of small mammals (Clark, 1952, p. 36-37). Accordingly, it seems plausible to suggest that the cross-bow was introduced by the early traders for killing fur-bearers at a time when guns were limited. This would help explain the wide distribution. Furthermore, the stock and trigger, even though inadequately described by the informant, suggest European influence.

The stock of the hunting cross-bow was shaped like a gun stock. It expanded slightly near the front, and here a transverse hole was cut into which the stave fitted. As far as is known, there was no groove along the top of the stock, but near its proximal end, on the upper side, three notches were cut. Any one of these held the bow-string when the weapon was cocked. A trigger was employed to release the string. To cock the bow, the hunter placed one of his snowshoes on a limb of the stave and drew back the string with both hands.

The toy cross-bow was made in the same way except that there was a groove running the length of the stock along the top surface and there was no trigger. Small pellets of wood were used as projectiles, which were propelled by the bow-string along the groove.

Arrows

Arrows were of two types, which may have been made in varying sizes depending on the species of game to be taken. The shafts, made of birch, were circular in cross-section. One type of arrow, used primarily for caribou, was tipped with bone or metal. The bone head was said by one informant to have been a little over one foot long. The metal head was double-edged with two barbs and a tang. The latter was inserted into the end of the shaft. The second variety of arrow, used primarily for small game such as ptarmigan and Spruce Grouse, had no attached head, the shaft terminating in a knob at the distal end (Plate XIIA).

The proximal end of the shaft on both types of arrows was flattened on two opposing sides. A notch was cut in the end of the shaft at right angles to the flattened surfaces. Occasionally, a second notch was cut about an inch from the proximal end along one edge of the flattened section of the shaft.

Arrows were fletched with duck feathers, split in half. The barbs were removed from each end of the vane exposing about one-half inch of the shaft, and each arrow shaft was feathered with three vanes placed one inch from the proximal end. Each vane was parallel to the long axis of the shaft and was not spiralled.

Fletching was done in the following manner (Figure 30). The shaft at the distal end of the vane was bent double under the vane. This bent section was

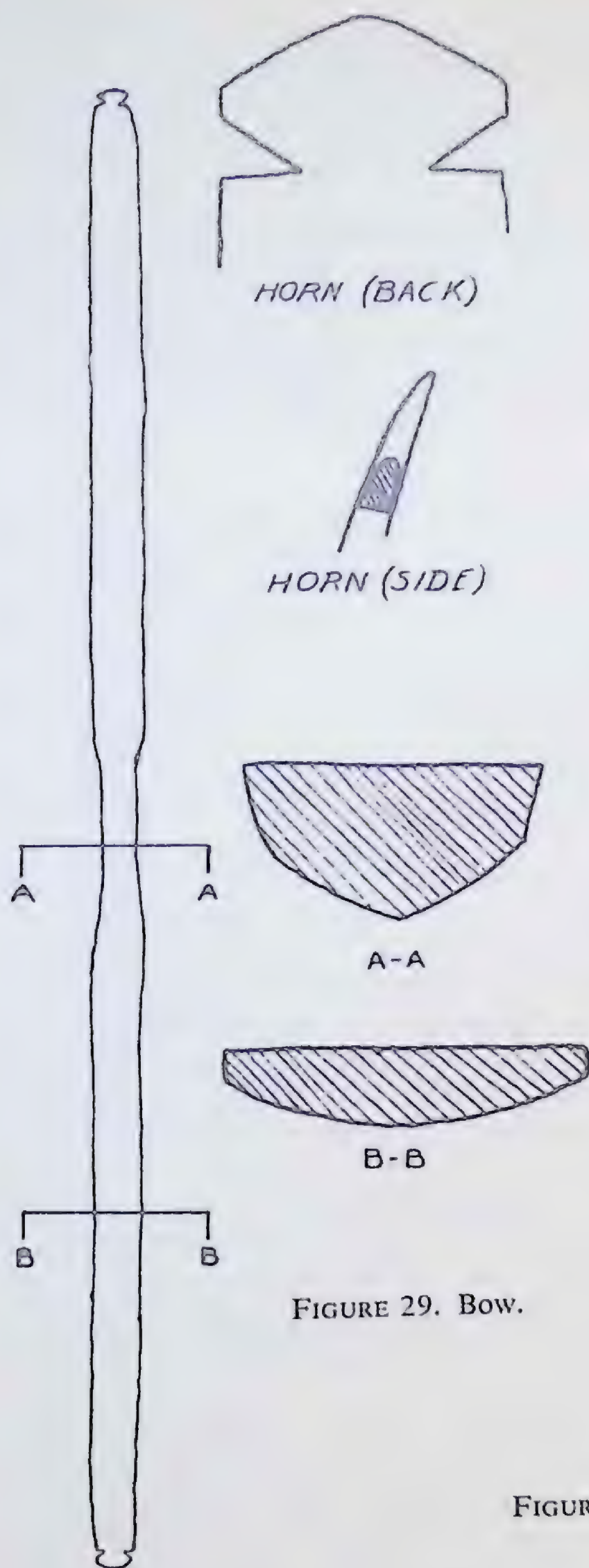


FIGURE 29. Bow.

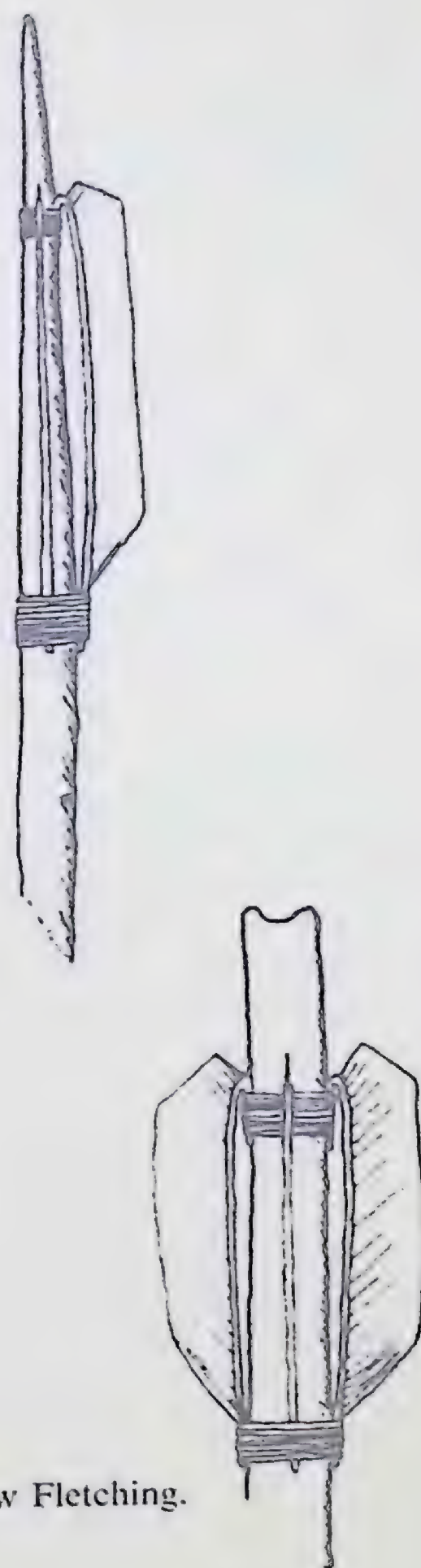


FIGURE 30. Arrow Fletching.

tied near the proximal end of the arrow shaft with fine thread. Next, the proximal end of the vane was fixed to the shaft, but the vane was not pulled taut. This resulted in a slight arching of the vane and shaft. Today, arrows are not fletched.

Quivers

Arrows were carried in a moose or caribou hide quiver. The quiver was cylindrical in shape. It was carried on the hunter's back in such a way that he could reach over his right shoulder with his right hand and quickly grasp an arrow. One informant stated that the bow and arrows were tied together and slung over the hunter's shoulder, or that the arrows were thrust through the hunter's belt.

Slinging Devices

There were three types of slinging devices, of which at least the first and last described were used for hunting game such as Spruce Grouse, ptarmigan, ducks, and squirrels. Slinging devices were often employed when a hunter was in search of big game and did not have his 22-calibre rifle with him or, if he did, did not want to use it for fear of frightening the game in the vicinity.

One device, no longer in use, was made as follows: A thin stick about two feet long and nearly one inch wide was prepared. A string was attached to this about two inches from the proximal end. To use the device, the hunter grasped the proximal end in his right hand. The free end of the string was laid along the length of the stick, over the distal end, and back to the proximal end where the hunter held it with his right-hand fingers and thumb. A flat stone was inserted under the string near the distal end on the same side as the operator's fingers. The device was fired in the same manner as an atlatl. The string was released as the stick was swung forward, freeing the stone.

A second device, used primarily for amusement at the present time, was the David sling. Two strings or thongs, 1½ to 4½ feet long, were attached to either end of a piece of hide. One string was always several inches longer than the other. The section of hide was about 1½ inches wide and from 4 to 7 inches long.

When the sling was used, the end of the longer string was wrapped securely about either the index or the second finger of the right hand. The end of the other string was held between the thumb and index or second finger of the same hand. The shot was a small spherical stone. The operator twirled the sling about his head and then released the shorter of the two strings, thus freeing the stone.

The third type of slinging device, or slingshot, still in use, was made from a crotched stick. Large ones for hunting were 6 to 8 inches in over-all length; smaller ones were made for the children. Two stout strips of rubber from an inner tube were attached to the ends of each arm of the stick. The other ends of the rubber bands were attached with string to either end of an oval or rectangular piece of moose hide. Small spherical pebbles were used for shot. Sometimes notches were cut in the handle of the slingshot to record the number of ducks taken; in one arm of the slingshot more notches were made to represent the number of ptarmigan and grouse killed, and in the other arm the number of small birds secured.

Guns

Guns have been employed in more recent times. These consisted of 22- and 30-calibre rifles and shotguns of several gauges. Rifles of 22-calibre were used for land birds and small mammals, 30-calibre for big game, and shotguns primarily for waterfowl. The men usually loaded their own shotgun shells just prior to a hunting trip. Shotguns were cleaned occasionally with the aid of home-made wooden ramrods.

Gun Cases

Guns were kept in cases decorated with bias binding (Plate XIIB). The case slipped over the end of the barrel, closing with a flap over the butt of the gun. The distal end of the case was reinforced with a piece of moose hide.

Shot Pouches

Shotgun ammunition was carried in an undecorated small canvas bag. Rifle ammunition was carried in a small cloth or hide bag, decorated with beadwork or bias binding. The pouches were 4 to 5 inches wide and 5 to 7 inches long, the top edge and sides of which were concave with rounded corners between. The bottom edge was convex. An opening, closed either with a zipper or buttons, extended the width of the pouch just above the 'waist.' Occasionally, a similar opening was placed on either side of the pouch. A baldric was attached to the two upper corners of the pouch (Plate XIIB). More rectangular-shaped pouches are in the collection of Mistassini material at the National Museum of Canada (Plate XIIB).

One informant described a type of shot pouch formerly employed for '30-calibre' shells only. In shape, it differed from those in use today in that the top was 'heart-shaped' rather than simply concave. It was made from black woollen cloth in three pieces: the back of one piece and the front of two pieces. The lower edge of the upper front piece overlapped the lower piece by about an inch near the 'waist.' The entire front surface was decorated with small beads in a floral design on a white background; the outer surface of the baldric was similarly decorated.

To carry the pouch, the hunter passed the baldric over one shoulder. On the opposite side of his body, he inserted the pouch between his belt and body so that it hung free below the belt.

Deadfalls

Formerly, deadfalls were in common use, especially for trapping fur-bearers. Today, they are rarely employed, and only those for marten were seen in use.

Deadfalls were of the under-propped type. These were set in one of two ways depending on whether or not bait was used. Baited or Sampson post deadfalls were set for bear, beaver, otter, marten, and mink. Fish was used as bait for all but beaver. In addition, salt pork was set for marten and mink. Branches of willows and alders were used as bait for the beaver deadfall.

Unbaited deadfalls were set for bear, beaver, otter, and woodchuck. These were placed in game trails or, in the case of woodchuck, at the entrance to the burrow. The otter deadfall was often set in an otter slide.

Otter, bear, and beaver deadfalls were set during the summer and fall and, presumably, in the spring. One informant claimed that beaver and otter traps

were set under water during the winter. A hole was cut in the ice, and the trap was constructed. The base log was tied to the bases of the two guide posts. The hole in the ice was then covered with boughs and snow to prevent the water from freezing. The reliability of these data could not be adequately checked.¹ Marten and mink deadfalls were used during the winter and early spring.

The baited deadfall (Figure 31) was often built at the base of a tree. The trunk formed the rear or one side of the more or less U-shaped enclosure. Stakes or slabs of a rotten stump, set closely together and placed upright in the snow or ground, extended out from the tree trunk to form the two side walls of the trap. The fourth side was open. A pair of posts (a-a and a'-a'), one of which might be the trunk of the tree, were set on either side of the entrance to the trap and acted as guides for the fall log (b). A base log (c) was inserted across the front between the guide posts.

The trigger (Figures 31 and 32) consisted of a bait stick (d) and a supporting stick (e) for the fall log, which extended between the guide posts and in line with the base log. The bait stick was placed horizontally projecting into the trap, one end of the supporting stick resting against either the underside of the base log (as in Figures 31 and 32) or the top of the base log, depending on where it was placed. The far end of the fall log rested on the base log. Bait and scent were attached to the free end of the bait stick. When the animal attempted to obtain the bait, the supporting stick was dislodged allowing the fall log to descend, killing the animal.

In the unbaited deadfall, two pairs of guide posts (Figure 34, a-a and a'-a') were used, but there was no enclosure. A base log (Figures 33 and 34, b) and fall log (c) extended between the guide posts as in the above trap. A small longitudinal ridge was cut on the upper side of the base log near the centre. A corresponding ridge was made on the underside of the fall log (Figure 33, d). A supporting stick (Figures 33 and 34, e) for the fall log was placed between the two logs at right angles to the two ridges; the fall log was weighted at the raised end with several logs leaning against it. An animal attempting to pass through the trap dislodged the supporting stick with the result that the fall log crushed the animal.

For bear deadfalls, a board containing nails was attached to the underside of the fall log. Nails were first driven through the board with their ends protruding slightly, and the board was attached to the fall log with the points of the nails facing the base log. When a bear sprung the trap, the nails pierced his back preventing him from squeezing out from between the fall and base logs.

When setting a marten deadfall, the ground or snow was often dug away slightly from behind and in front of the base log. This was done so that the marten could not obtain a footing in order to release himself. The fall logs in this and the preceding trap did not necessarily instantly kill either the bear or the marten. Rather they slowly crushed the animal to death.

¹ Recently an Ojibwa from the Rainy River area, Ontario, informed the author that formerly deadfalls were constructed under water for beaver and otter. There was no reason to doubt this man's testimony.

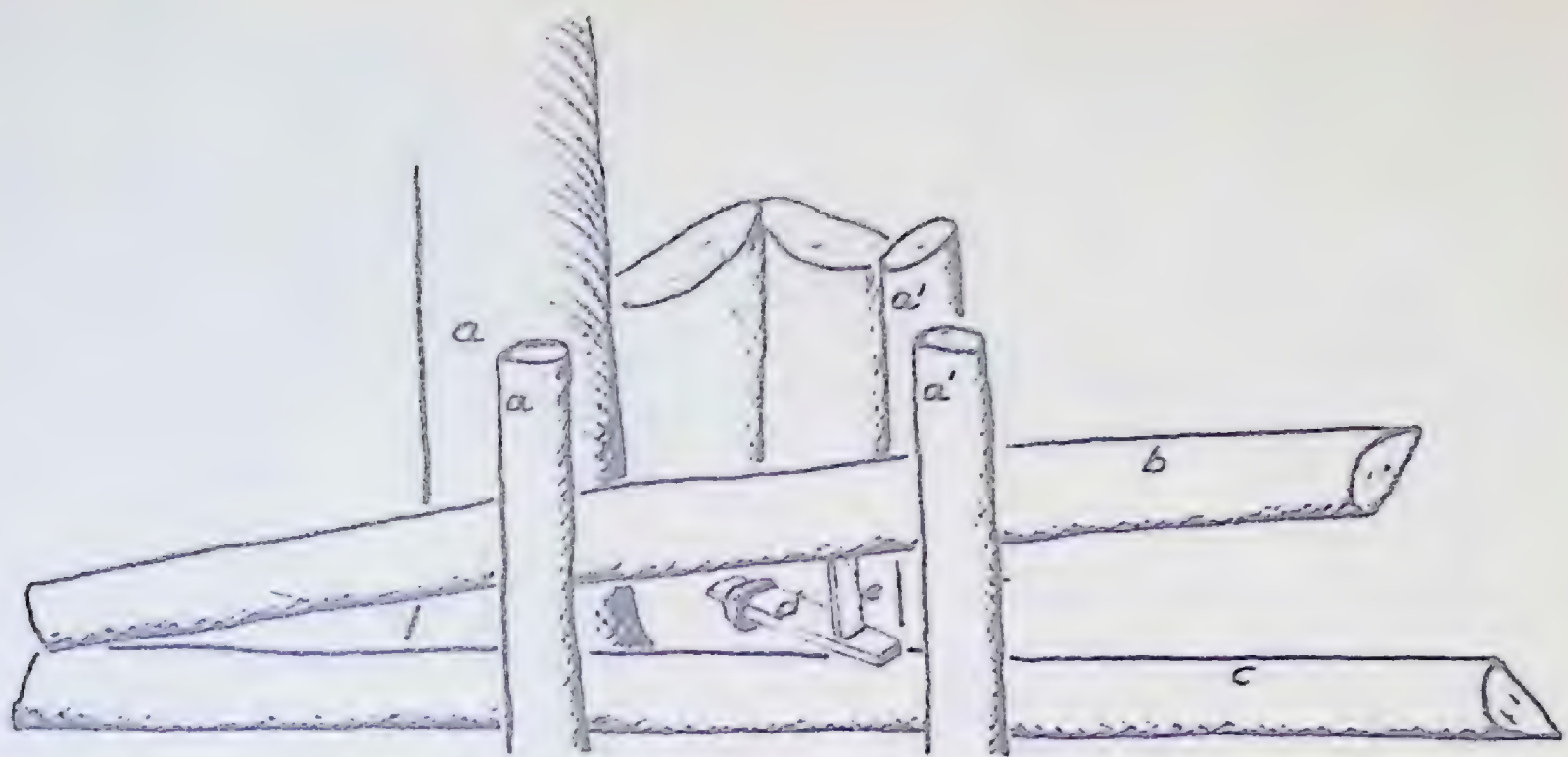


FIGURE 31. Baited Deadfall.

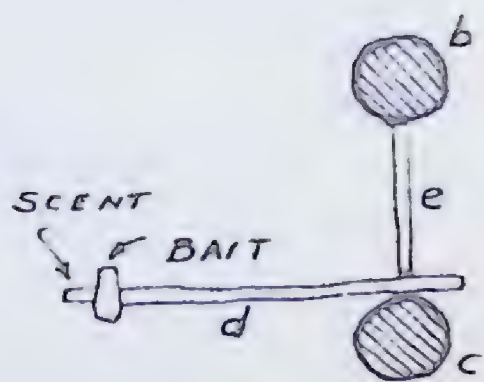


FIGURE 32.

Trigger Releases.

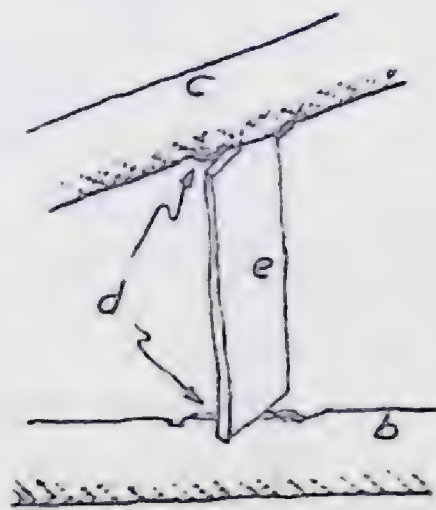


FIGURE 33.

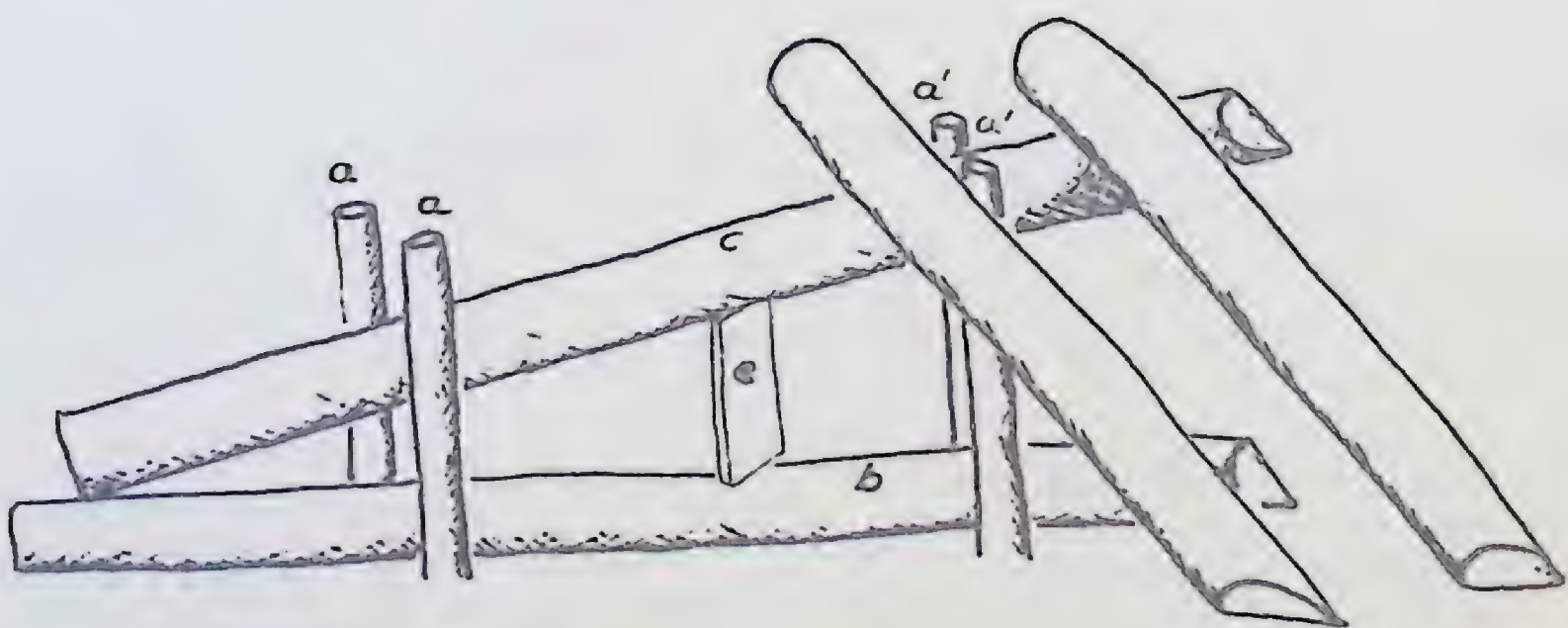


FIGURE 34. Unbaited Deadfall.

The size of the deadfall depended on the species of animal to be taken. The marten deadfall, of which several examples were observed, was constructed with a base log 4 to 5 feet long and about 4 inches in diameter. The fall log was approximately the same size. The guide posts were 2 to 3 inches in diameter and extended from 1½ to 2 feet above the surface of the snow. The entrance was from 1 foot to 1½ feet in width. The bait stick was about 6 inches long, and the supporting stick was about 4 inches long. The ideal height of the fall log above the base log at the trigger was the width of four fingers. The enclosure was about 8 inches deep.

Snares

There were several types of snares: hand-operated, stationary, spring-pole, and tossing-pole. Within these types there were several variations depending on the species of animal or bird for which the snare was set. At the present time, only stationary snares for hares are commonly used.

In the past, the noose for the snare was made with thong or string. When thong was employed for hare snares, the noose was rubbed with marten liver to prevent the hare from eating it. Today, copper wire is the principal material for the noose.

To make the noose (Figure 35) an overhead knot was tied in the end of the string (a). A running knot (b) was then made with this end, and the free end of the string (c) was passed through the loop of the running knot to form the noose.

For hand-operated, spring-pole, and tossing-pole snares, the noose was tied to the end of the pole with two overhand knots (Figure 36, a) or two lark's head knots (Figure 36, b). In the stationary snare, a single bow knot was used to attach the noose to the crossbar (Figure 36, c).

There were four methods used to secure the noose of the spring-pole and tossing-pole snares to the crossbars (Figure 37, a-d). These automatically came undone when the trap was sprung. The second and third ties (b and c) were identical except that in 'b' the pole was placed against the crossbar and in 'c' (also 'a' and 'd') it was about an inch above it. In the latter case, the tie had to be placed under the crossbar so as to hold until the trap was sprung.

Nooses were held open in one of two ways. In one, a thread was looped about the string on each side of the noose, and the two ends of the threads were then inserted in a cleft in a stake located on either side of the noose (Figure 35, d). The threads broke easily when the snare was sprung. In another method, a twig was bent in an arc on each side stake, and the sides of the noose were then hooked over the twigs (Figure 35, e).

Hand-Operated Snares

The hand-operated snare, attached to the end of a pole about 8 to 10 feet long, was used in the capture of Spruce Grouse. The noose was slipped over the bird's head by the hunter and drawn tight.

Stationary Snares

The stationary snare was employed for ptarmigan, caribou, lynx, squirrel, hare, and fox.

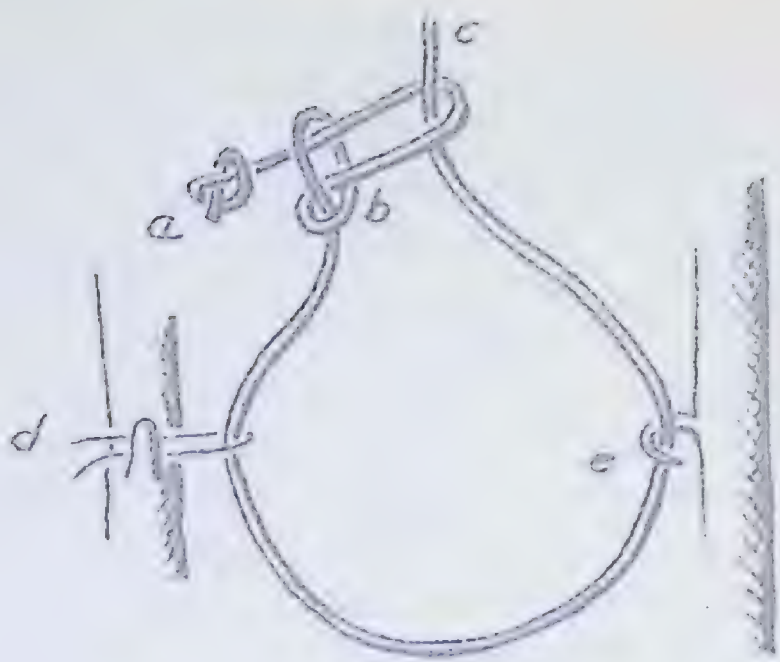


FIGURE 35. Noose for Snare.

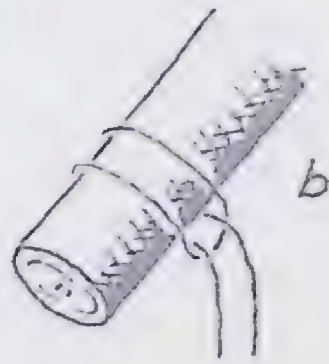
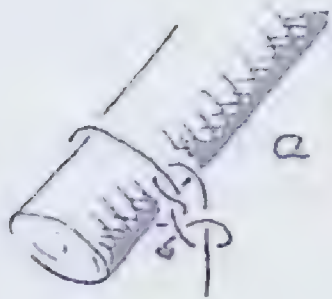
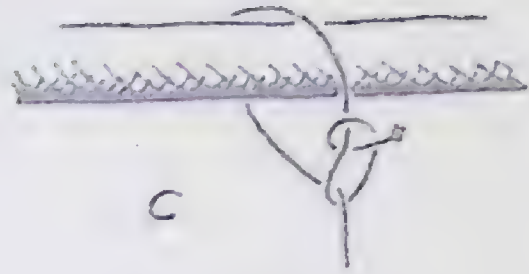


FIGURE 36. Ties for Snares.

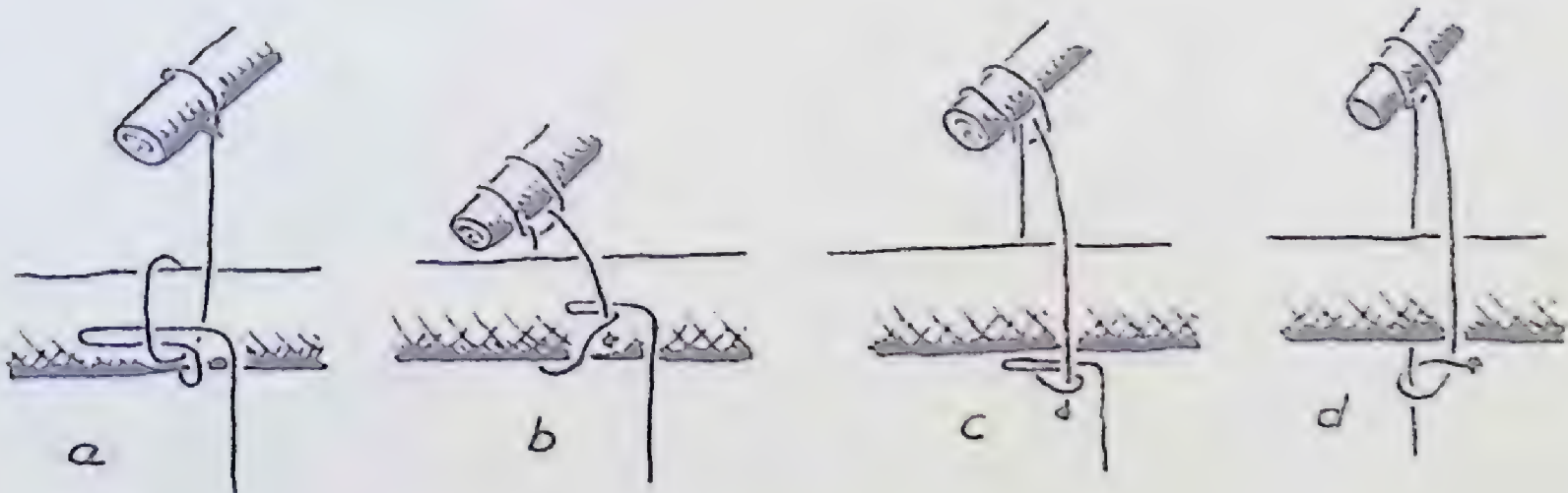


FIGURE 37. Releases for Snares.

To produce a ptarmigan snare, a row of willow branches was erected in the snow for a distance of from 75 to 100 feet. At the openings among the twigs, small snares were attached. The ptarmigan, when feeding on the willow buds, thrust their heads through the openings and were caught.

Several methods were formerly used for snaring caribou. One consisted of the setting of snares in caribou trails, where the trail was constricted by natural features such as trees. Snares were attached to the branches of the trees projecting over the trail. Another method was described by one informant. It involved the use of a chute and pound erected on the surface of a frozen lake. About five posts were set in a row at intervals in the ice. A long pole was secured horizontally near the top of these posts, and a similar row was erected parallel to these at a short distance. Each end of the double row was closed with a fence of spruce saplings. From the ends of one row of posts, wings were constructed. These consisted of small trees set in the snow about three feet apart, which guided the caribou into the trap. From the ends of the second row of posts, wings were erected extending a short distance in the opposite direction from the first set, and their ends were joined by a fence of spruce saplings. This enclosure formed the pound. Nooses were attached to the horizontal poles at the tops of each row of posts and held open between the latter. Caribou were driven into the open wing, and, as they passed through the two rows of posts, some were entangled in the snares. These were killed, removed, and the snares reset. The caribou which had passed through into the pound were driven back between the posts, at which time more were caught in the snares.

Stationary snares for lynx were baited. An enclosure of similar construction to the baited deadfall was made, and the snare was set at the entrance, where stakes were driven into the ground on either side. A crossbar with noose attached and held open by securing it to the stakes was secured to the stakes near the top. A long pole placed in the snow or ground at one side of the entrance to the pen was occasionally substituted for the crossbar. It was inclined at an angle so that it extended across the two posts near their tops, but it was not secured to them. The noose was tied to the pole and hung between the two stakes. The lynx, in an attempt to reach the bait, thrust its head through the noose, drawing it tight about its neck.

Squirrel snares were utilized by boys. These were set at the entrance to a burrow. A stick to which the snare was attached was placed in the ground at an angle and crossed above the entrance to the tunnel. The noose was held open by securing it to small sticks erected on either side of the burrow.

Stationary hare snares (Figure 38) were in common use in 1953-54. A pole was inclined across a hare runway at right angles to it. To the pole a copper wire noose which hung directly over the runway was attached, and on either side of the noose a vertical stick was erected. Beyond these were small twigs placed to form a barrier extending for about a foot. Two small sticks were located under the noose, placed either vertically or crossed, and moss was placed at the base of these. The sticks forced the hare to jump and become entangled in the noose.

Fox snares, baited or unbaited, were set along the shore of a lake or river wherever fox tracks occurred. They were constructed as follows: a stake was

driven into the ground at each side of the trail. The tops of the stakes were connected with a crossbar to which a noose was secured. If the trap was baited, sticks inclined so as to point toward the trap were placed at the centre of the trail about 1½ feet to either side of the snare, and a piece of meat was inserted in a split in the end of each stick. The fox, finding one piece of meat, smelled the second, started along the trail for it, and became entangled in the snare.

Spring-Pole Snare

Spring-pole snares were employed to capture hare, lynx, fox, and the Canada Jay, those for hares (Figure 39) being placed in runways. Stakes supporting a crossbar were set on either side of the path. At one side of the trail, a sapling, if convenient, was trimmed of its branches, or one was erected. The tree was bent, and a noose was attached to the end. The noose was then secured to the crossbar and was held open with small twigs. The hare, on becoming entangled in the noose, released the knot (Figure 37, either one) securing the noose to the crossbar. This then freed the bent pole which automatically straightened, lifting the animal into the air. A larger spring-pole snare of the same construction was employed for lynx and fox.

A variation of the spring-pole snare was used for Canada Jays (Figure 40). A sapling was peeled, the small end of which was flattened on two opposite sides; a groove was cut near the end. A hole was drilled about two feet from the end, and a string was passed through it and tied about the groove at the end of the pole. An overhand knot was made in the string eight inches below the groove. The end of the pole was bent, and the string was pulled back through the hole until the knot (a) emerged. From this side, one end of a small stick several inches long was forced into the hole. The stick wedged the string in place and prevented the end of the sapling from straightening; the knot aided in holding the string in place. A noose was made in the free end of the string and draped over the stick. Bait, such as a piece of meat, was secured to the end of the stick. The jay, resting on the stick, dislodged it when attempting to remove the bait. As the end of the pole straightened, the bird's feet were caught in the noose and pulled against the pole.

Tossing-Pole Snare

This type of snare was used for bears and hares. For bears (Figure 41), two stakes were erected several feet apart, and a crossbar consisting of a single straight stick or a crotched stick (a) was secured to their tops. The arms of the crotched stick were long enough so that both of them could be secured to one of the side stakes. This was done in such a way that the noose could hang between the arms. A tall pole with a crotch at one end was erected to one side and in a line with the frame. A heavy 'balance' pole (b) was then rested in the crotch with the larger end on the side away from the crossbar and stakes, and the pole was tipped so that the small end rested at the centre of the crossbar. A noose was secured to this end of the pole and to the crossbar and held open between the two stakes with thread or bent twigs (Figure 35, d and e). The crotched pole acted as a fulcrum, and the balance pole extended far enough beyond it to act as a lever when the trap was sprung. The bear, thrusting his head through the noose, released the tie made at the

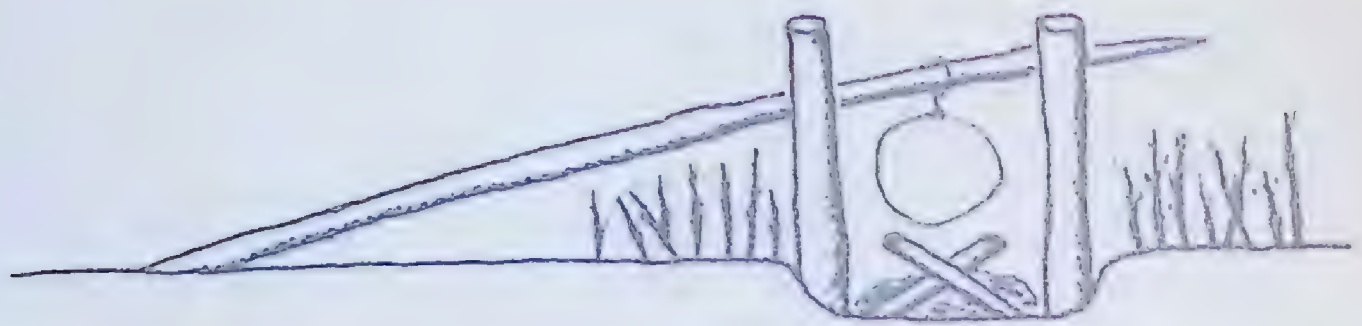


FIGURE 38. Stationary Hare Snare.

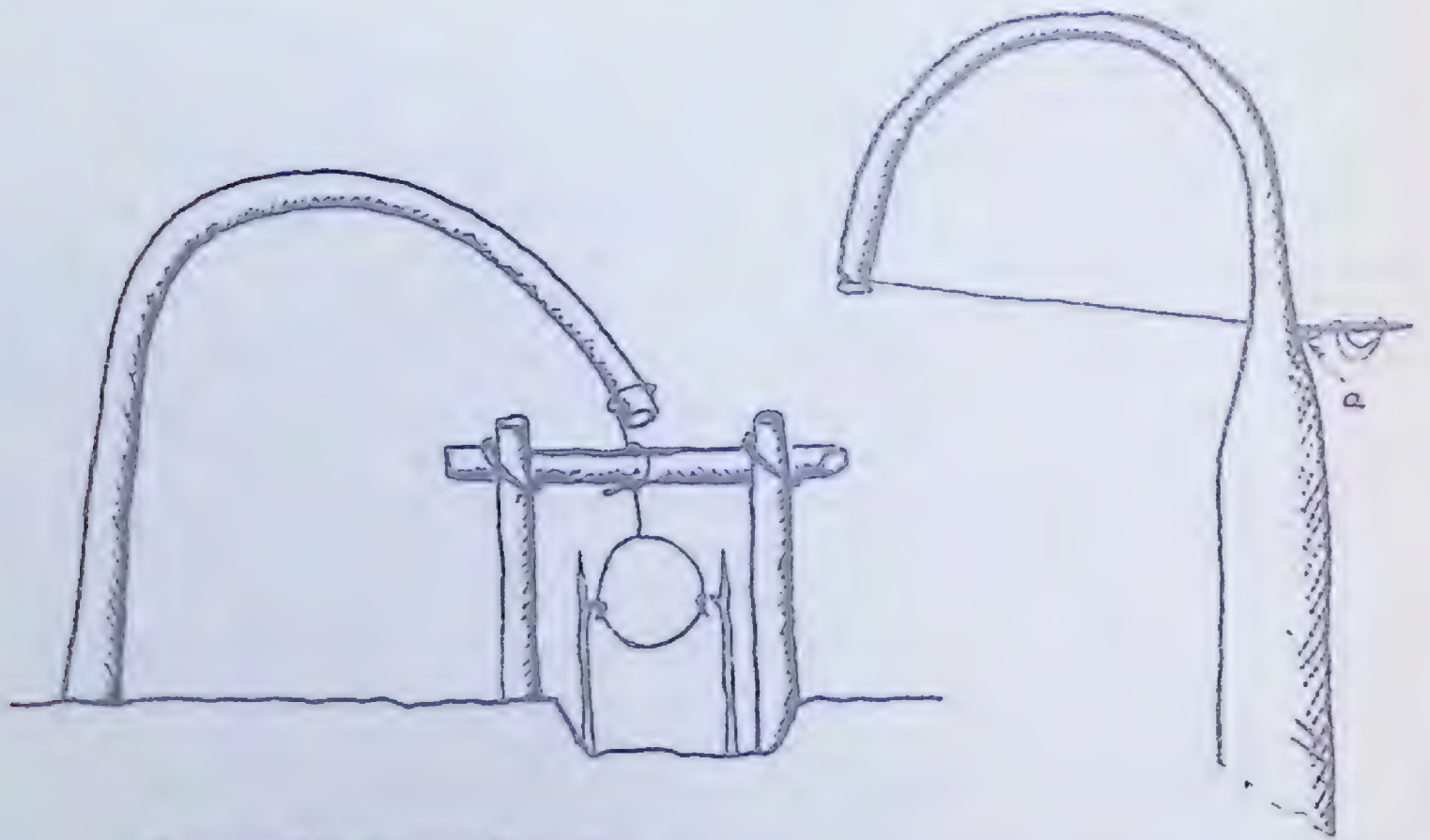


FIGURE 39. Spring-Pole Snare.

FIGURE 40. Canada Jay Snare.

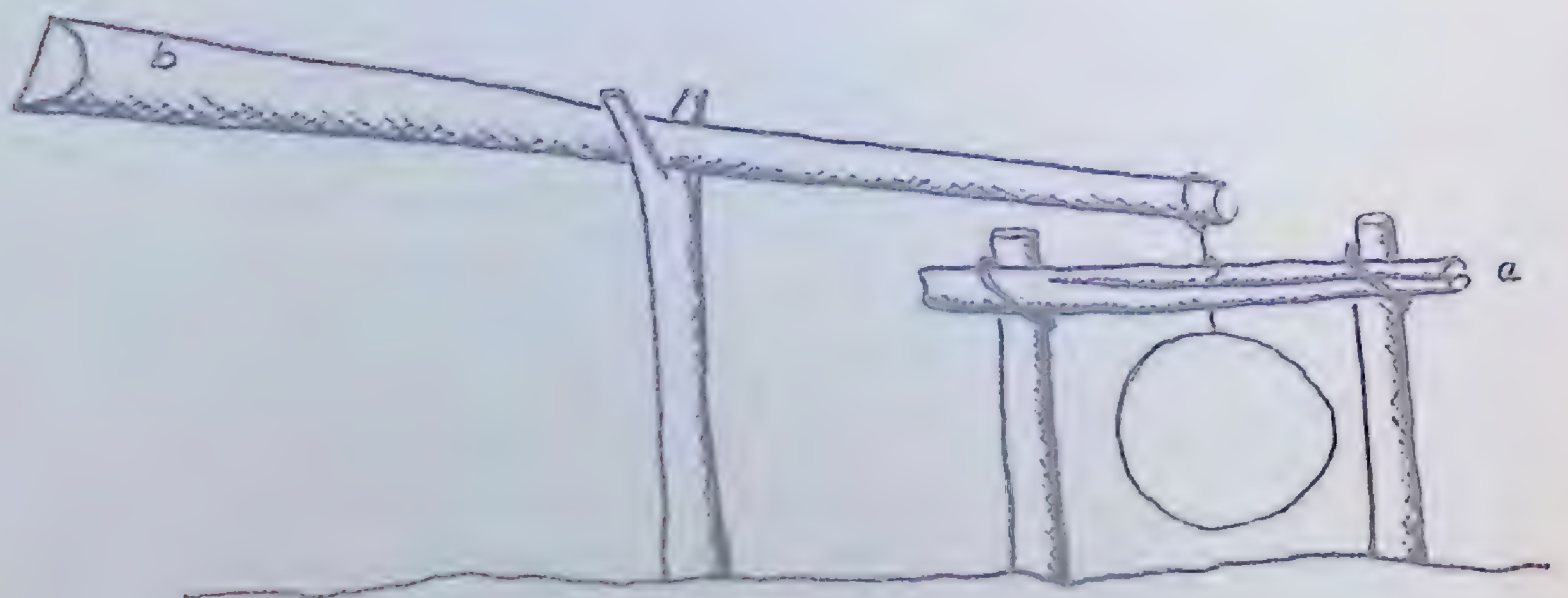


FIGURE 41. Tossing-Pole Snare.

crossbar (Figure 37), freeing the balance pole. If the crotched crossbar was used, the bear was pulled against it and soon choked. This type was preferred. Otherwise, the animal swung free.

Smaller tossing-pole snares for hares were made in the same way except that a crotched crossbar was never used. This type of snare was used in very cold weather instead of the spring-pole snare which might become frozen.

Nets

Nets were employed for the capture of otter, beaver, ptarmigan, and Snow Geese (?). Beaver and otter nets were identical in construction and set in the same way. They were made in the same manner as gill nets (*see Fishing Equipment*). The net was several feet long on each side. For otter, the gauge was about 3 by 3 inches and for beaver it was from one inch to two inches larger. A long cord passed around the edges of the net, being hooped through the meshes.

The nets were set in narrow streams. Two stakes were driven into the stream-bed at a distance from one another slightly greater than the length of the net and in a line at right angles to the stream. The net was stretched between the two stakes, and each corner was attached to a stake by a thread. The net was so placed that the ends of the cord about the circumference extended from one of the upper corners to shore. Between the stakes and the bank of the stream, sticks were erected to prevent the beaver or otter from by-passing the trap. The hunter, holding the two ends of the cord, concealed himself on shore. When an animal struck the net, the threads supporting it broke. The hunter then pulled the cord taut. This acted as a drawstring and closed the net about the animal.

A gill net was employed in the capture of ptarmigan and perhaps Snow Geese, although this latter could not be confirmed. It consisted of several lengths of net secured side by side and occasionally in two layers. The completed net was about 10 feet wide and 12 feet long. There were several minor variations in the manner in which nets were erected. In one method, poles were attached to each edge of the net. Four stakes were placed upright in the snow so that each supported a corner of the net and frame. The frame and net were about two feet above the snow. Sand was spread under the net for bait. One end of a long cord was tied to one of the side poles of the net, and the hunter, concealing himself at some distance from the net, held the other end. When a number of birds had gathered beneath the net, the cord was pulled, releasing the trap and the net to fall on the birds. A second method of setting the net and frame was to lay two short sticks on the snow parallel to each other and about the width of the net apart. One edge of the frame rested on these, and a short vertical pole forced into the snow supported the opposite edge. Bait was used as in the preceding trap. A cord was attached to the supporting pole, and the trap was operated as above. Another method of setting the net was to erect three vertical stakes in a line. Three poles parallel to each other and on the same side were leaned against these at an acute angle. A net, this time without the frame, was attached to them. The trap was baited as previously. When the cord attached to the three stakes was pulled, the net was released.

Snowshoe Traps

A trap, made with either one or two snowshoes or a board, was employed for Canada Jays. A hole was dug in the snow or ground. Two snowshoes were placed over it, one leaning against the other like a gabled roof. A string tied to one snowshoe was passed through the other and extended to a concealed operator. When only one snowshoe or a board was used, it was held in position by a stick with a string attached to it. When the string was pulled, the stick was dislodged, and the snowshoe fell covering the hole. A piece of meat placed at the bottom of the hole was used for bait.

Steel Traps

Two sizes of steel traps are in common use today: one of medium size for beaver and otter; the other a small trap for mink, marten, ermine, and muskrat. In the past, a very large trap was used for bear. Steel traps were set in a number of ways depending upon the species to be trapped and upon the trap's location.

Bear Traps

Bear traps were set during the late spring and early fall. In the spring, they were located in areas along a stream which, because of its fish, was frequented by bear. In the fall, they were placed near bear trails about blueberry patches.

To construct a bear trap, stakes were driven into the ground to form an enclosure with one open end. The trap was set at the opening and attached by a chain to a post driven into the ground. Another method of securing the trap was to place a stick on the ground across the width of the enclosure and immediately inside the first stakes on either side of the entrance. To this the chain was attached. In this method, if the bear dislodged the stick, it soon became entangled in the underbush preventing further escape. Bait consisting of dried fish wrapped in a piece of birchbark was secured to one of the stakes at the rear of the enclosure. Fish oil was used for scent. The bear in an attempt to reach the bait through the opening would step on the trap. When the bear was caught, it was shot.

Beaver Traps

Beaver traps were set in at least three ways. These were used during the winter. One method (Figure 42) consisted of breaking the ice at the edge of a beaver dam. At this point, a small break was made in the dam (a). At either side of the break on the inside of the dam, a small stake (b) was driven into the bottom of the pond. In front of the dam and to one side of the break, another stake (c) was placed, and about ten feet from the break on the pond side of the dam three stakes (d) of dry wood were erected. These three stakes were set several feet apart in a row parallel to the dam. One end of a long dry pole (e) was attached to the stake (c) placed outside the dam. Dry wood was employed for the stakes and the long pole to prevent the beaver from eating them. The pole extended under the ice toward the three stakes (d), and to this end a cord was tied. The other end of the cord was tied to one arm of the trap (f), which was set in front of the break just inside the dam. A stone weighing several pounds was attached to one arm by a cord. Several

sticks were laid across the hole in the ice at the edge of the dam, and blocks of snow were placed on the sticks, partially obscuring the opening.

When a beaver, generally an old one, came to repair the break in the dam, it stepped on the trap. The animal, endeavouring to return to his house, wrapped the trap cord about one or more of the stakes (d), thus preventing further movement. The animal soon drowned since it was unable to reach air. The Mistassini desired that beaver die quickly, otherwise they might have time to sever their entrapped paw(s).

A second method (Figure 43) consisted of setting the trap under the ice. The technique varied slightly depending upon the depth of the water. First, a hole was chopped through the ice. If the water was rather deep, a number of poles (a) were placed in the hole leaning against one side. Placed thus, the poles formed a crude trough. They were at an angle and several inches apart. The arms of the trap (b) were slipped over one pole, which was placed along the centre of the trough. The trap rested about a foot below the surface of the water. The end of the chain was attached to a short stick, which was buried in the snow at the edge of the opening. Alder and willow branches were placed along one side of the trough for bait. A beaver, attempting to obtain the bait, would climb up the trough and spring the trap.

When the water was shallow, a slightly different technique was employed. A long pole was flattened at one end, and one arm of the trap was slipped over it. The trap was placed on the bottom of the pond, the pole to which it was attached extending out of the water. Several poles were then laid parallel to one another, across the opening in the ice, and the end of the trap chain was attached to one of these. Along two sides of the opening, branches of alders and willows were placed, the butts of the branches resting on the bottom about the trap. The upper parts rested against the sides of the hole.

The third method was employed when the trap was set in shallow water. A stake enclosure was constructed on the bottom of the pond, with one end open. The stakes were placed about three inches apart, a distance close enough to prevent the beaver from getting more than his head into the enclosure, except by way of the entrance. The arms of the trap were slipped over a pole. This was laid along one side of the enclosure, and the trap chain was secured to one of the stakes at the rear. A branch of alder or willow laid along the other side of the enclosure was used as bait. A crotch at the butt of the branch was hooked about one of the stakes at the rear to prevent the beaver from dragging it out. Another method of anchoring the branch was first to cut a notch in the butt, next to slip the split end of the stick over the notch, and then to drive the stick into the pond bottom.

Otter Traps

There were two methods of setting otter traps. The method used during the fall, winter, and spring consisted of placing the trap on the bottom of a small stream. Between the trap and either bank, stakes were erected to prevent the animal from circumventing the trap, which was secured to a long pole. One end of the pole was split, and the ring at the end of the trap chain was slipped over this end. A small wooden wedge was inserted in the split, forcing the two halves apart and preventing the ring from coming loose. This end

FIGURE 42. Beaver Trap.

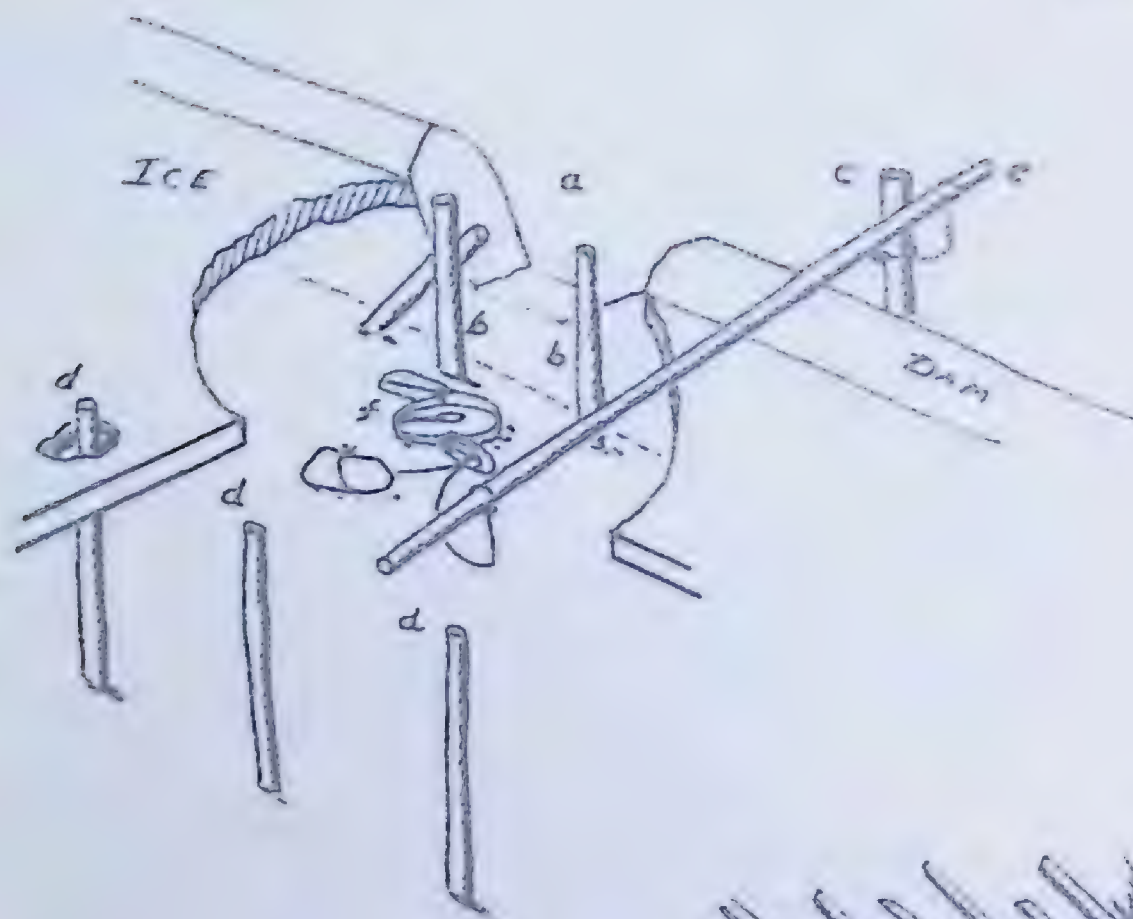


FIGURE 43. Beaver Trap.

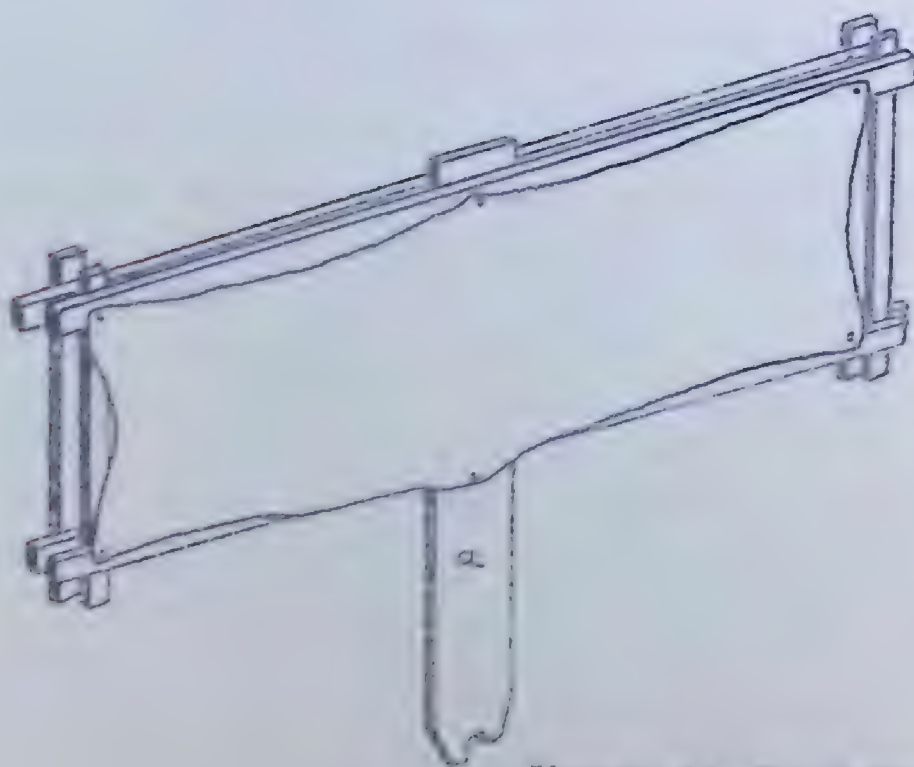
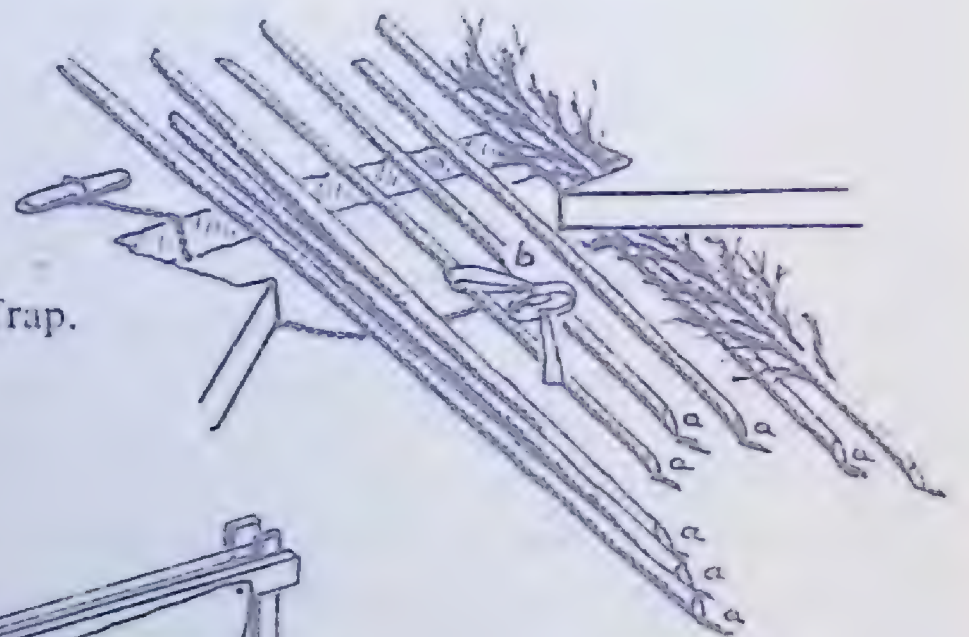


FIGURE 44. Duck Blind.

of the pole was placed on the bottom of the stream; the other end, extending upward beyond the bank, was tied to a nearby tree.

The other trap setting for otter was employed during the spring and perhaps also in the fall. The trap was placed in an otter trail or on a point of land frequented by otter. A small area of ground was cleared, and here the trap, lightly covered with duff and moss, was placed. A large stone was tied to one of its arms. The chain was attached to a long pole in a manner similar to the preceding methods. The end of the pole was secured to a tree or bush. Small sticks were erected on either side of the trap and at right angles to the trail to restrict the animal's movements.

Mink Traps

Mink were trapped during the winter. The traps were similar to those for bear but smaller. Although they were set principally for mink, ermine were also taken in them, and squirrels were often accidentally caught.

The trap consisted of an enclosure built at the base of a tree in similar fashion to the baited deadfall or bear trap. The trap was placed on a bed of boughs just inside the entrance to the pen, and the ring of the chain was slipped over a stake driven into the ground at one side of the entrance. One end of a small stick was dipped into a bottle of scent, and the stick was placed upright at the rear of the enclosure. The scent was a mixture of 'oil of aniseed' and beaver castors; otter and mink scent glands were sometimes made use of. A small piece of fresh fish was impaled on another stick, which was set just in front of the 'scent stick,' and the enclosure was then covered with boughs except for a small opening in front. The animal, attempting to reach the bait through the entrance, would step on the trap.

Marten Traps

One type of marten trap was made exactly like the mink trap. There was a second method of setting a trap for marten during late winter and early spring. A pole several feet long and several inches in diameter was set at an angle in the snow, and attached to the pole near the raised end was a piece of salt pork covered with twigs. A cut was made on the upper surface of the pole a few inches below the bait. With one side of the arm of the trap slipped into the cut, the trap proper rested on the pole. Scent was rubbed about the bait. The marten, ascending the pole for the bait, would spring the trap.

Muskrat Traps

Muskrat were trapped during the fall and late spring. Traps were set along stream-banks on partially submerged logs. A small area on the top surface of the log was roughly levelled with an axe. One side of the arm of the trap was inserted in a slit made at one end of this cut surface, with the trap itself resting on the levelled area. The pin in the end of the trap chain was driven into the log. If there was no pin, the end of the chain was secured to the log with snare wire. When the trap was set during late spring, scent was rubbed on the log at either side of the trap.

Lynx Traps

Lynx traps were similar to mink traps but larger. Hare meat or occasionally the head of a hare was placed at the rear of the enclosure for bait. Scent was used.

Fox Traps

Fox traps were placed along the shores of lakes and streams. They were, on occasion, placed on top of a large boulder since it was the habit of this animal to ascend prominent features from which it could survey the country.

Woodchuck Traps

Woodchuck traps were set at the entrances to burrows. Upright sticks were placed at either side of the trap to restrict the entrance, forcing the animal to step in the trap when entering or leaving the burrow.

Blinds

Various types of blinds were often used when hunting ducks, geese, and loons during the spring. Two forms were attached to canoes. One was made of several small spruce trees set upright in the bow, their branches interwoven horizontally to form a solid unit. The second form (Figure 44) was more carefully constructed. A 'mast' (a) was first made. It was several inches wide, several feet long, about one inch thick, and notched at one end. It acted as a vertical support for a rectangular frame constructed of eight lath-like boards. At the unnotched end, a narrow, thin board was attached to either side at right angles, the boards extending about four feet beyond the sides of the 'mast.' About one foot below these, a similar pair was attached, and across the ends of these boards, wooden strips were secured. There was one strip inserted between the paired boards and one on the outside. The side of the frame lacking the outside strip was sometimes covered with burlap. Branches of spruce trees were now inserted between the narrow boards around the circumference of the frame, and the blind was placed at the bow of the canoe. The notched end of the 'mast' fitted between two canoe ribs and over the interior portion of the keel. The bottom of the frame rested on the gunwales.

Blinds were also built on shore. A framework of spruce trees was erected, behind which the hunter crouched. These were often used in conjunction with decoys.

Decoys

Decoys were used in hunting geese, black ducks, and American Golden-eyes. They were made as nearly as possible like the particular species they were to represent. Small alder or willow branches were utilized in building the frame. A number of branches were placed together to form a long, narrow bundle. The bundle was then bent double, and the ends were tied together. This represented the body of the decoy. Another bundle, bent slightly at one end but not doubled, formed the head and neck of the decoy. It was held together with string. This bundle was inserted in the bend of the first one. A goose or duck bill was tied to the head, and pinions were tied to either side of the body bundle to simulate wings. Feathers were laid along the body with the quills inserted between the twigs. These followed the colour pattern of the species represented. Two sticks were inserted on the bottom for legs.

A slightly more elaborate technique was sometimes used to represent the head and neck of goose decoys. The head and neck of a goose were skinned. Formerly, even the breast skin was removed with this piece, but this is no longer done since it is considered to be 'wasteful of fat.' The skin was then

stuffed with caribou hair, and a stick was inserted at the base. The other end of the stick was inserted into the bundle forming the body.

Moose Calls

A moose call was occasionally made from a large piece of birchbark. The bark was rolled into a cone and made fast. The hunter blew through the small end to imitate the call of rutting moose.

FISHING EQUIPMENT

The fishing equipment of the Mistassini Indians was limited. It consisted of gill nets, with the accompanying floats and sinkers, and gill net poles. Fish hooks, more correctly gorges, were used with set lines for jigging. The western Mistassini also used spears.

Gill Nets

Gill nets were set throughout the year except for a week or two at the time of freeze-up. They were either obtained from the trading companies or manufactured by the Mistassini, usually the women. These nets varied in length but were generally about 100 feet long and several feet wide, and the meshes were square and about 2 inches on a side.

The net was made from light twine obtained from the stores. The twine was carried on a small netting needle (*see Tools for Making Gill Nets*) and tied to the other strands with a weaver's knot (Figure 45). The mesh was held to constant size with a mesh gauge (*see Tools for Making Gill Nets*). Work progressed across the net producing a new row of meshes which was carried on the gauge as it was formed. On completion of a row, the meshes were pulled taut and then removed from the gauge. The process was then repeated in the opposite direction. This continued until the desired length of net was attained.

When the net was finished, it was sometimes dyed before the selvage lines were attached. The dye was made from black spruce cones or obtained commercially; sometimes a combination of both was used. If cones were used, they were boiled in water for several hours. The net was soaked in the liquid for about two days, and then dried.

Selvage lines were a heavier twine than that used in the nets. They were placed the length of the net, one line along the top edge and another along the bottom, and extended beyond the ends of the net about 25 feet.

To attach the selvage lines, a double line was suspended horizontally and at the same height between two posts or trees. Starting at one end, the two edges of the net were slipped over the lines, one edge on either line. The line was passed through the top and bottom rows of the meshes alternately, from one side and then the other (Figure 46). A lighter twine, generally carried on a large netting needle (*see Tools for Making Gill Nets*), was employed to secure the selvage lines in place. The line was first tied to one selvage line several feet from the end of the net (Figure 46, a). It was then stretched taut along the selvage and tied just before reaching the net (b'). Again it was stretched taut along the selvage line and tied inside the first mesh (b''). Next, within a distance of about two feet, nine or ten meshes of

the net were placed. The securing line was then tied at this point (b'''), and the step was repeated at an equal distance. Each time a new tie was to be made, the distance between the last two ties was measured with the securing line as a guide. As the selvage was being secured to one side of the net, a second person generally fastened the securing line to the other selvage. He or she worked slightly behind the first individual and took the location for the ties from the finished side.

Several cautions were observed when the selvage lines were attached. The line must not twist or else the edges of the net would roll toward the centre. Furthermore, the ties made with the securing string to the selvage line on the top edge must be directly opposite those on the bottom edge or else the net would not open properly.

Net Floats and Sinkers

Net floats were of two types: those for winter use when the nets were set under the ice, and those used during the summer. Both types were made of dry wood.

Winter floats (Figure 47) were half cylindrical or pie-shaped in cross-section. Occasionally, the long edges were bevelled. The floats were approximately 6 inches long, 4 inches wide, and 2 inches thick. Sometimes notches were cut in the edges at the centre as an aid in securing the float to the net. In place of notches, a small hole was occasionally drilled in one edge. At other times, no preparations were made for the attachment of the string. Small net floats were employed during the winter since they would not become frozen into the ice as easily as the long summer type.

Light string was used to attach the float to the net in case the float did become frozen into the ice; the string could then be readily broken allowing the net to be removed. The ties are shown in Figure 48.

Summer net floats (Figure 49) were between 1 foot and 2 feet long. In cross-section, they were approximately circular, triangular, or rectangular with a maximum thickness of 2 to 3 inches. One end in which a short split was made was tapered slightly and flattened on two sides. The float was attached to the selvage line of the net by slipping the latter into the split. Instead of a split, a notch was sometimes made. String was attached to the float and then tied to the selvage line of the net.

Netsinkers were beach pebbles obtained locally and were approximately the size of a fist. Whenever possible, the pebbles chosen were slightly constricted about the middle. If these could not be obtained, notches were sometimes made in the edges. A string was attached by a slip knot about the middle of the stone, and the other end of the string was tied to the bottom selvage line (Figure 50).

Formerly, narrow strings of willow bark were employed in place of string for attaching the sinkers to the net. Whenever the nets were removed from the water to be dried, the sinkers and bark 'string' were left under water to prevent the latter from drying and breaking.

Net floats and sinkers were tied opposite one another along the net and placed two and one-half or three armspans apart.



FIGURE 45. Gill Net Manufacture.

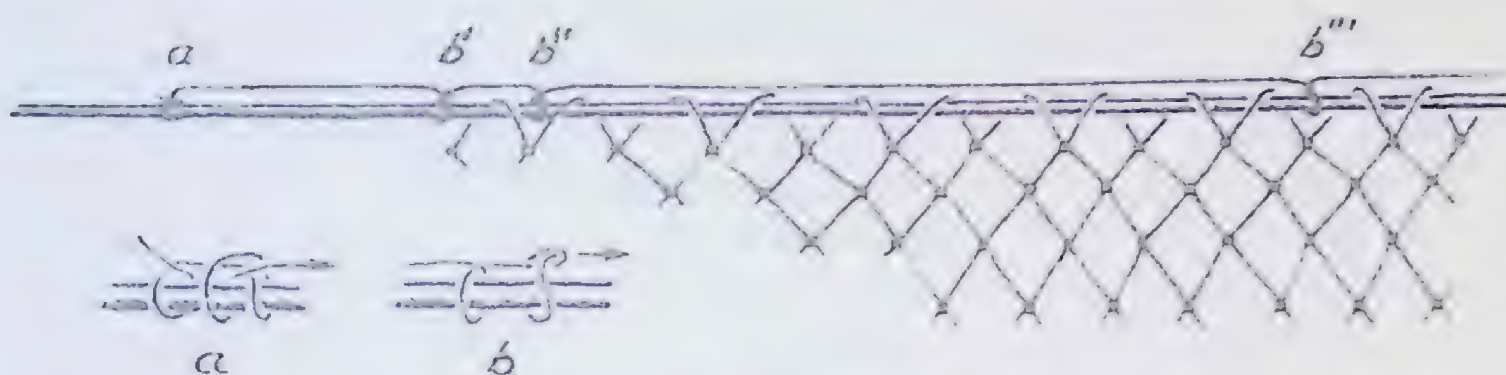


FIGURE 46. Gill Net.



FIGURE 47. Winter Net Float.



FIGURE 49. Summer Net Float.



FIGURE 48. Ties.



FIGURE 50. Ties.

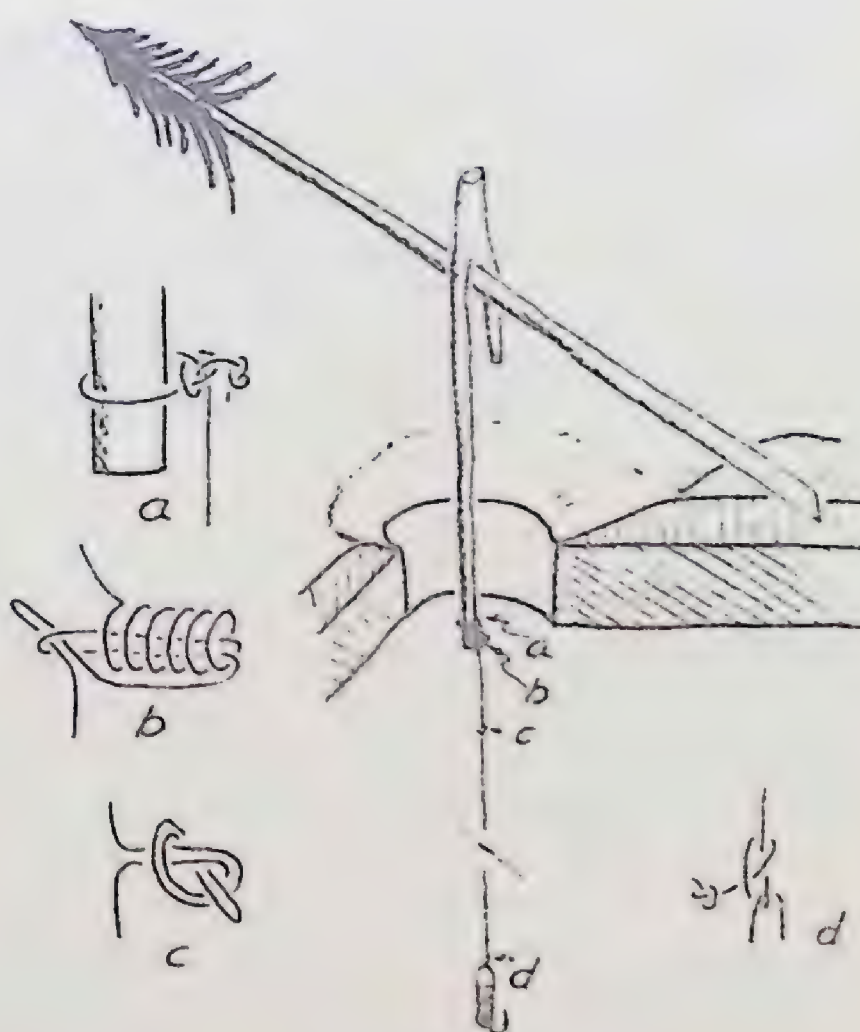


FIGURE 51. Set Line.

Gill Net Poles

A long pole was employed for setting nets under the ice. It was either a single pole obtained at the time the net was set, or else it consisted of several poles tied end to end. One such pole observed was made with three poles; it had a total length of about 30 feet. The poles were between 2 and 3 inches thick at their bases and $\frac{1}{2}$ inch thick at their tips.

Fish Hooks

Bone fish hooks or gorges were in common use about twenty years ago. They were composite hooks consisting of a wooden shank and a bone point. The shank, about 4 inches long and approximately $\frac{1}{4}$ inch in diameter, was split at one end, and the bone point was inserted. The point was about 2 inches long and was made from the leg bone of a caribou. One end was sharpened to a point, and the other end was inserted in the shank at about a 30-degree angle. The joint was bound securely to hold the bone point in place. In addition, a string (or babiche) was secured about the centre of the point and then about the shank. Babiche lines were used with these hooks. A modern variant of this type of hook is shown in Plate XIVA.

Today, large steel hooks are employed for set lines and jigging. A short strip of wood is bound to the shank (Plate XIVA), but occasionally the hook is used without the wood. Spoons, obtained from the trading companies, are employed for trolling.

The hooks were baited with a piece of fish, commonly sucker, which was wrapped about the shank, the bend, and the point of the hook, and tied in place with string.

Spears

Spears were employed for taking sturgeon. They consisted of a wooden shaft from 5 to 6 feet long, to the end of which one or two metal points 8 to 10 inches long were attached. Each point had two barbs. When a single point was used, the tang was set in a hole drilled in the end of the shaft. If the spear had two points, lengthwise grooves were cut opposite each other at one end of the shaft, the tangs of the points were placed in the grooves, and the join was wrapped securely with twine. The points were oriented in such a way that the planes of the barbs were in line with each other.

Set Lines

To erect a set line, an area from 20 to 40 inches in diameter was first cleared of snow with a large snowshovel. A hole about 12 inches in diameter was then chopped through the ice with an ice chisel, and the broken ice was removed with a snowshovel. A sapling, with only the terminal branches left, was thrust into a pile of ice chips to one side. If the ice was thin, a small hole was chopped to hold the sapling, which was inclined over the opening. A baited hook was tied to one end of a long line, and a stone sinker, if available, or a handful of sand secured in a piece of cloth, was attached to the hook. The hook and sinker were both lowered into the water until they touched bottom. The string was now cut about twenty inches above the surface of the water. An overhand knot was tied in the end of the string and then a slip knot (Figure 51, a). The slip knot was placed over the end of a short

pole and tightened. The pole had the remnants of a branch left at the other end to form a hook. An overhand knot was then tied in the string at water level (c). Next, the hook and sinker were removed from the water, and the sinker was detached. The hook was then replaced in the water. Following this, the line, extending from the end of the pole to the knot at water level, was coiled about the fisherman's fingers of one hand. The coil was secured with a knot that would slip free when the line was pulled as the bait was taken (b). The crotched pole was now hung over the inclined sapling; the lower end extended a short distance under the water. A little snow was placed in the opening.

CHAPTER FIVE

Travel and Transportation

INTRODUCTION

The Mistassini Indians were a migratory people travelling a great many miles during the course of any one year. Each hunter might cover as much as a thousand miles or more during the winter. A hunter and his family might move five hundred miles to and from the summer encampment and about their land. This was true of those whose land was near the borders of the band territory farthest from the summer encampment. Other families nearer the summer encampment, of course, travelled much less.

Well-recognized 'trails' were generally used for travel. During the months of open water, these consisted of rivers and lakes connected by portages. They linked the hunting lands with the summer encampment. During the winter, overland trails were used. These linked together the various locations for base camps within the hunting territory and, in addition, linked the base camp with good hunting and trapping areas. Overland winter trails and portages were usually marked with blazes on tree trunks. Although there were a number of trails throughout the country, travel in search of game was done without the aid of trails. In these cases, no attempt was made to clear a path.

Bridges were sometimes constructed for crossing small streams. A tree or two were felled across the water, and occasionally the logs were covered with spruce saplings. This latter type of bridge was used during the winter when it was necessary to transport toboggans and sleds across the stream.

A hunter used several guides, such as wind direction, the sun, the moon, and the star constellation, *wucekAtlhkU*, to orient himself when there was no trail. In addition, the known shapes of lakes were utilized to locate position in the dark or in drifting snow.

When two or more hunters travelled together, they pointed out the direction of various objects or locations with the index finger, the second knuckle of the index finger, or with the lower lip. This was in part a matter of making as little noise as possible when hunting, although these signs were frequently used at other times when there was no need for quiet; they were also used by the women.

At times, signs were erected which indicated the direction and distance of a man's camp and whether or not he needed aid. A man in distress would attempt to find a trail over which he hoped his neighbour would soon pass. Here a sign consisting of a few sticks was prepared and erected in one of several ways depending on the message. The hunter first placed a stick vertically in the snow. Another stick, about ten feet long, was inclined beside it, pointing in the direction of the hunter's base camp. If the butt of this stick was placed near the base of the vertical stick, it meant that camp was very

close. If the inclined stick was erected in such a way that the free end was next to the top of the vertical stick, it meant that camp was far away. Sometimes, when the sticks were arranged in the latter manner, a third stick was placed vertically between the bases of the first two. This meant that the base camp was about two days' walk away. The base of the last stick erected indicated a place where an over-night stop could be made and that perhaps there was a 'hunting' camp there. This third stick might be prepared to indicate that someone was dying or that immediate help was needed. It was prepared by cutting shavings which were left attached about the middle of the stick. Today, a letter is left attached to the top of the third stick.

In recent times, messages were often left along the routes of travel to and from the hunting grounds to inform relatives and friends of various events. These were written in the Cree syllabic script on paper or birchbark. The paper or bark was placed in a cleft in the top of a stick. Over the top of the stick a can might be placed to protect the note from rain. Messages were also written on a freshly made blaze on a tree.

A number of items of equipment were employed in transportation, some of which were restricted to winter use when there was snow on the ground, e.g., snowshoes, toboggans, canoe-sleds, and sleds. Other items employed only in summer were canoes and paddles, rafts, and tumplines. Still others, such as the *nimapan* and the hunting bag, were used throughout the year. Dogs were formerly used solely for hunting but are now primarily employed for drawing sleds and, occasionally, toboggans. Accordingly, dogs and their care are treated in this section.

Snowshoes

Netted snowshoes were of five styles: 'elbow,' bear-paw, swallow-tail, beaver-tail, and 'pointed' (Osgood, 1940, p. 345).

The 'elbow' snowshoe is no longer employed, and no adequate description of it was obtainable. It was said to have been shaped something like a tear-drop. It may have been the 'beaver-tail' style reported by Turner (1889, Plate XLI, facing p. 310) from Ungava or the 'square-toe' snowshoe from Mistassini illustrated by Davidson (1937, p. 92, Figure 44, d). Conceivably it was similar in outline to the 'Eastern Pointed-Heel' variety of the Malecite and Micmac (Davidson, 1937, p. 53, Fig. 18, a) and was probably the second type, although the evidence is far from conclusive.

The bear-paw snowshoes were said to have been an old style preceding the beaver-tail and larger than the swallow-tail. They were said to have been used when the snow first came but could be used all winter. At present, they are apparently reserved for children between the ages of five and seven. After that age, children want 'real' snowshoes. The bear-paw snowshoe was made quickly when the need arose; fewer lacing materials were required than in other types. This variety was approximately elliptical in outline with a single crossbar located forward of centre.

Swallow-tail snowshoes (Figure 52 and Plate XIVB), another style formerly employed, are still used today. They were worn by both men and women. The men used them during November and December and again in March and April when the snow was heavy and granular. During mid-winter they were

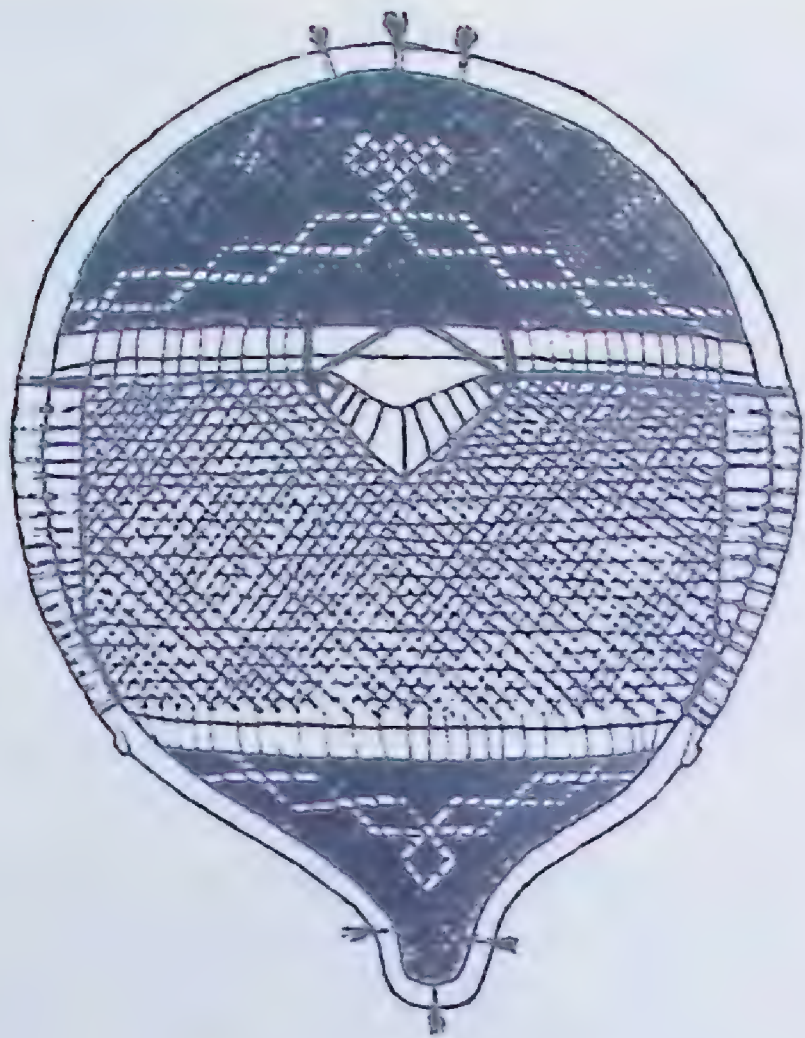


FIGURE 53. Beaver-tail
Snowshoe.

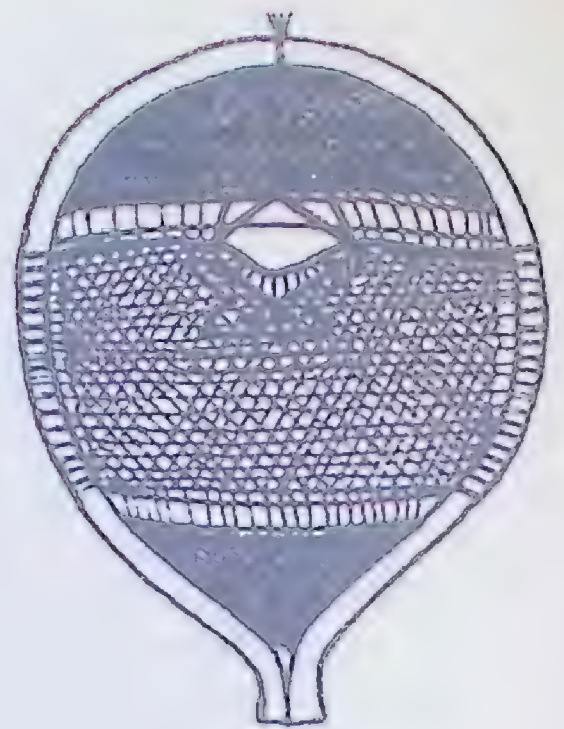


FIGURE 52. Swallow-tail
Snowshoe.

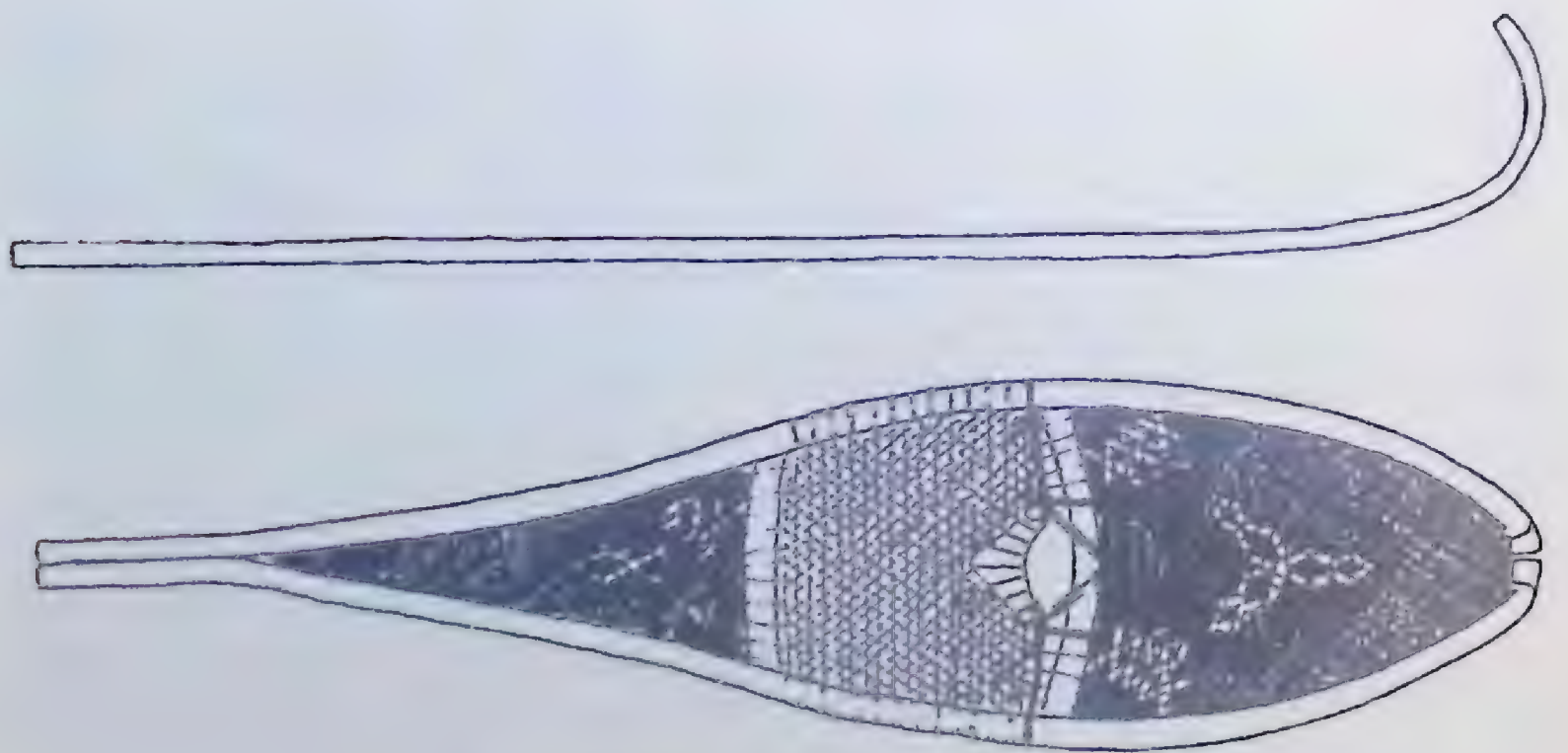


FIGURE 54. 'Pointed' Snowshoe.

employed by the men only on well-packed trails. Women, on the other hand, wore them throughout the winter.

These snowshoes were without netting within the tail. Each frame was made of three pieces of wood: the frame proper and two crossbars. They were from about 25 to 32 inches long and 18 to 22 inches wide. Smaller ones were made for children who wore them when they were as young as four or five years of age.

Beaver-tail snowshoes (Figure 53) were said by one informant, who was over seventy years of age, to be a recent acquisition from the Chicoutimi Indians (inhabitants of the area just east of Lake St. John) and to have replaced the bear-paw snowshoes. There is some reason to question this information. Turner (1889, Plate XLII, facing p. 312) reported the beaver-tail, called by him 'round-end,' at Ungava in the early 1880's. If it spread northward by diffusion from the Chicoutimi Band to Mistassini and thence to Ungava, it must have been known at Mistassini some time before the 1880's. This is, of course, possible. On the other hand, the beaver-tail snowshoe was only used during mid-winter when the snow was light and powdery. The scanty information regarding the seasonal use of the bear-paw did not imply definite mid-winter utilization. This suggests that the beaver-tail would not have been a substitute for the bear-paw snowshoe. It might, though, have replaced the 'elbow' snowshoe. Furthermore, the fact that the beaver-tail snowshoes were the most carefully made and most highly decorated of the two types commonly employed at Mistassini today was of some significance. This could be interpreted as indicating that the beaver-tail style was well integrated into Mistassini culture with respectable antiquity.

The evidence regarding the date of acquisition and the place of origin of the beaver-tail snowshoe is inconclusive. The impression is that it is old in this area. It is not found to any extent, if at all, outside the Labrador Peninsula.

Beaver-tail snowshoes were worn principally by men and then only during mid-winter, as previously mentioned. This type, in contrast to the swallow-tail, was netted in the tail area of the rear section. Each frame was generally made of four pieces, occasionally of three: one or two pieces for the frame proper and two for the crossbars. The frames were from about 30 to 35 inches long and 22 to 27 inches wide. Boys, beginning about the age of eight or nine, wore small ones.

The 'pointed' snowshoe (Figure 54 and Plate XVA) was a recent introduction to the Mistassini Indians. It entered the area from the west, being a copy of those in use on James Bay. It was probably acquired about the time the Mistassini Indians were trading at Rupert's House, thirty or more years ago. Today, these snowshoes have been adopted primarily by the western families of the Mistassini band.

The 'pointed' snowshoe was long and narrow and turned upwards in front. Each frame was made of five pieces: two for the frame proper and three for the crossbars. One crossbar was placed just to the rear of the wearer's foot, another at his toes, and a third small one at the front curve. One specimen measured, belonging to a teenage boy, was approximately 56 inches long, 14

inches wide, and had a curve in front extending about $8\frac{1}{2}$ inches above ground level.

Wooden snowshoes, though known, were said to have been made only by 'half-breeds,' never by the Mistassini themselves. According to one informant, they were constructed of one or two boards in the shape of swallow-tail snowshoes. There were two crossbars and a toe hole. At each side of the toe hole there was a smaller hole for the attachment of the harness. In an emergency, the tops of trees were used in place of snowshoes.

All parts of the frame for netted snowshoes were made of green birch taken from the sapwood region of the tree. Young trees were preferred. Larch wood was occasionally employed; it lasted longer than birch, especially when the snowshoes were used in granular snow, but in spite of this quality it was apparently never popular. The frames of the swallow-tail type wore out in as little as a year's time because they were used a great deal more than beaver-tails and because they were employed during the fall and spring when granular snow was common. Beaver-tails, on the other hand, lasted a good many years, since they were used only on powder snow during mid-winter. Because the bottom of the frame wore most rapidly, the slots for the crossbars were placed toward the upper side of the frame. Those for the heel crossbar were nearest the top.

Snowshoes were manufactured by the men, generally during late fall and early winter. Swallow-tails, since they were needed first, were made in late fall; beaver-tails generally were made during the winter. The maker first selected and felled a birch tree. A section of the trunk of proper length was removed. Then, one or two pieces for the frame proper were cut from the sapwood region with an axe, leaving the bark attached. Each piece was the section of the trunk in length and several inches in width and in thickness. If a section was to be used for crossbars, it was split into several pieces. Those of the proper quality were then trimmed with an axe.

After returning to camp, the maker first prepared the frame proper, later the crossbars. The pieces for the frame were further reduced in size with an axe and were trimmed to the desired proportions with a crooked knife. The wood was cut along the inner surface so that it followed exactly the curvature of the grain. This often resulted in an uneven surface, but it was done purposely in order to reduce splintering when the piece was bent. It made no difference in the finished shape of the frame since during the bending process the irregularities would be eliminated.

Next, the bark was removed in one strip with a knife and bent to simulate the front half of a snowshoe in order to gauge the desired size. This done, the bark was broken at the proper length, which was one-half the circumference of the frame. This prepared strip was used as a measure for marking the pieces of wood for the frame proper.

Each frame proper for a pair of swallow-tail snowshoes was made of one piece of wood prepared in the above manner. As guides for bending the frame and inserting spreaders, pencil marks were placed on each piece of wood that would be the top surface of the frame. The first mark (Figure 55, a) was located approximately at the centre. Next, near either end a mark (b) was made. The distance between *a* and each *b* was equal to the length of the bark

strip and was measured with it. Halfway between the centre and each end mark another mark (c) was drawn. An additional mark (d) was placed the width of the bark strip beyond each end mark. The second piece of wood was tied securely to the first, and each mark was duplicated on it. The pieces were then untied, and the surfaces from which the bark had been removed were smoothed with a crooked knife. One side of the frame, just inside the double lines, was thinned slightly.

Next, each section of wood was bent to form the frame proper. The pieces were repeatedly immersed in hot water during the process. First, the end of one piece was bent (Figure 55, B) just inside the two marks near the end. A similar bend (B') was made at the other end. The piece was then bent at the middle (B'') in the opposite direction from the bends near either end. After this bend was partially completed, a string was attached to both ends of the piece. As the ends were brought closer together, the string was tightened. Bending continued until the ends crossed, and the paired lines were opposite one another. The ends were then tied together (Figure 55, e).

Then a spreader was inserted, its ends being placed opposite the marks (c) on either side of the frame. Following this, the frame was tied together for a second time near the ends (f). The original tie (e) was removed, and the ends were bent apart until they slipped parallel to one another. A small piece of wood (g) was placed on the outside of the frame near each end, and the ends were bound tightly together. The pieces of wood prevented the binding from cutting into the frame.

The second frame was prepared in the same manner. The two frames were then tied together. The marks on one frame were placed in line with the corresponding marks on the second. Wooden clamps (*see Woodworking Tools*) were employed to hold the frames in line. Then a single spreader was made and inserted to replace the original two. When this was done, the frames were placed overhead inside the lodge to dry. This generally took three days. While the frames were drying, crossbars (Figure 56) were made. These were roughly shaped with an axe, finished with a crooked knife, and then hung to dry. They were oval in cross-section.

After the frames had dried, either the holes for the selvage thongs or the slots for the ends of the crossbars were made. Selvage thong holes were drilled completely through the frame from the outside. They were placed in the toe and heel areas of the frame and sometimes in the centre section. They were placed toward the top edge of the frame and were approximately one-eighth inch in diameter. They were located in pairs, one hole about one-eighth inch above the other, each pair about an inch apart. Those near the toe crossbar within the toe area were placed closer together. This made possible a finer mesh just forward of the toe crossbar to withstand wear received when the hunter knelt to examine traps.

The slots for the crossbars were approximately an inch long and one-quarter inch wide and deep. They were made with a small chisel (*see Woodworking Tools*).

After the selvage holes and slots were prepared, the frames were smoothed with a crooked knife and steel files. The crossbars were either inserted now or after the selvage thongs were partially in place. Selvage thongs were made

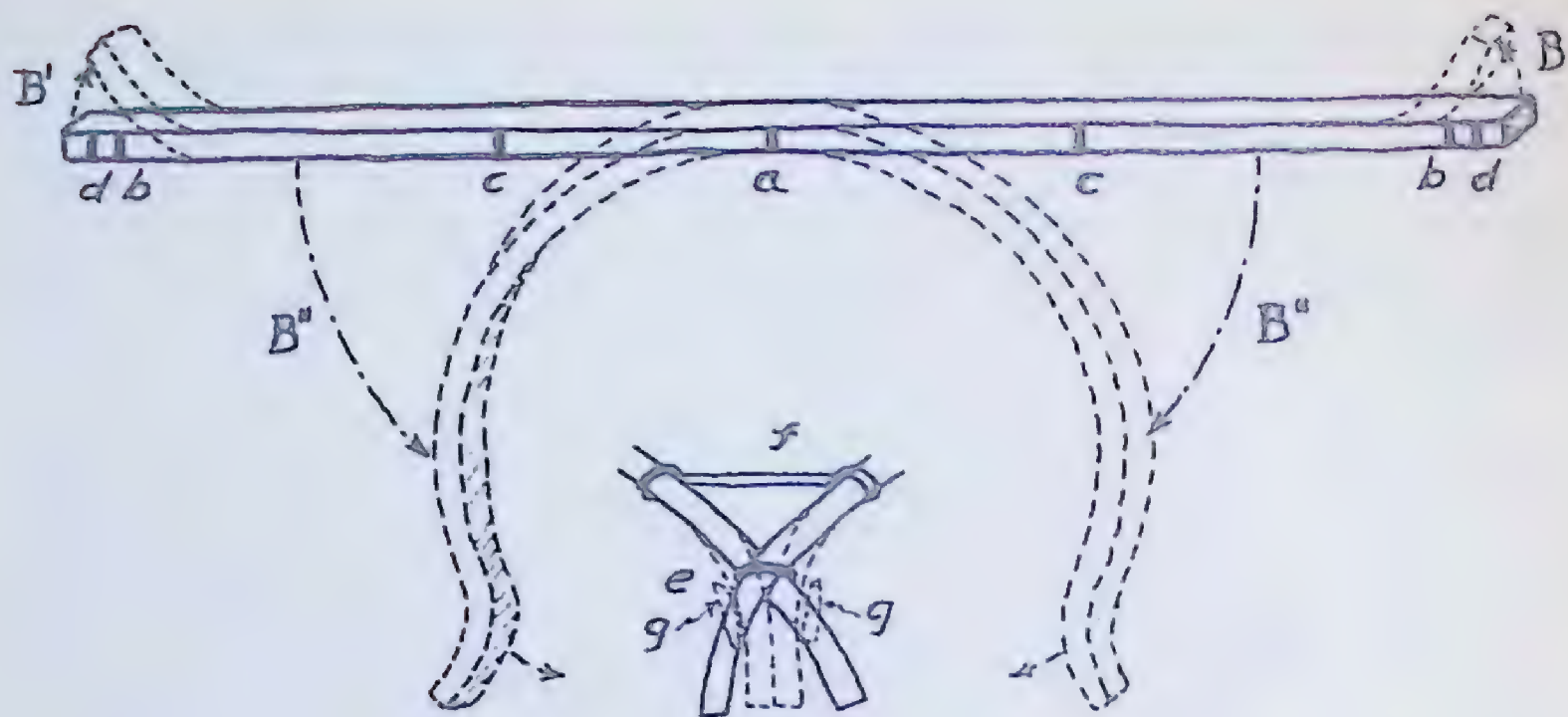


FIGURE 55. Bending Frame for Swallow-tail Snowshoes.



FIGURE 56. Crossbars.

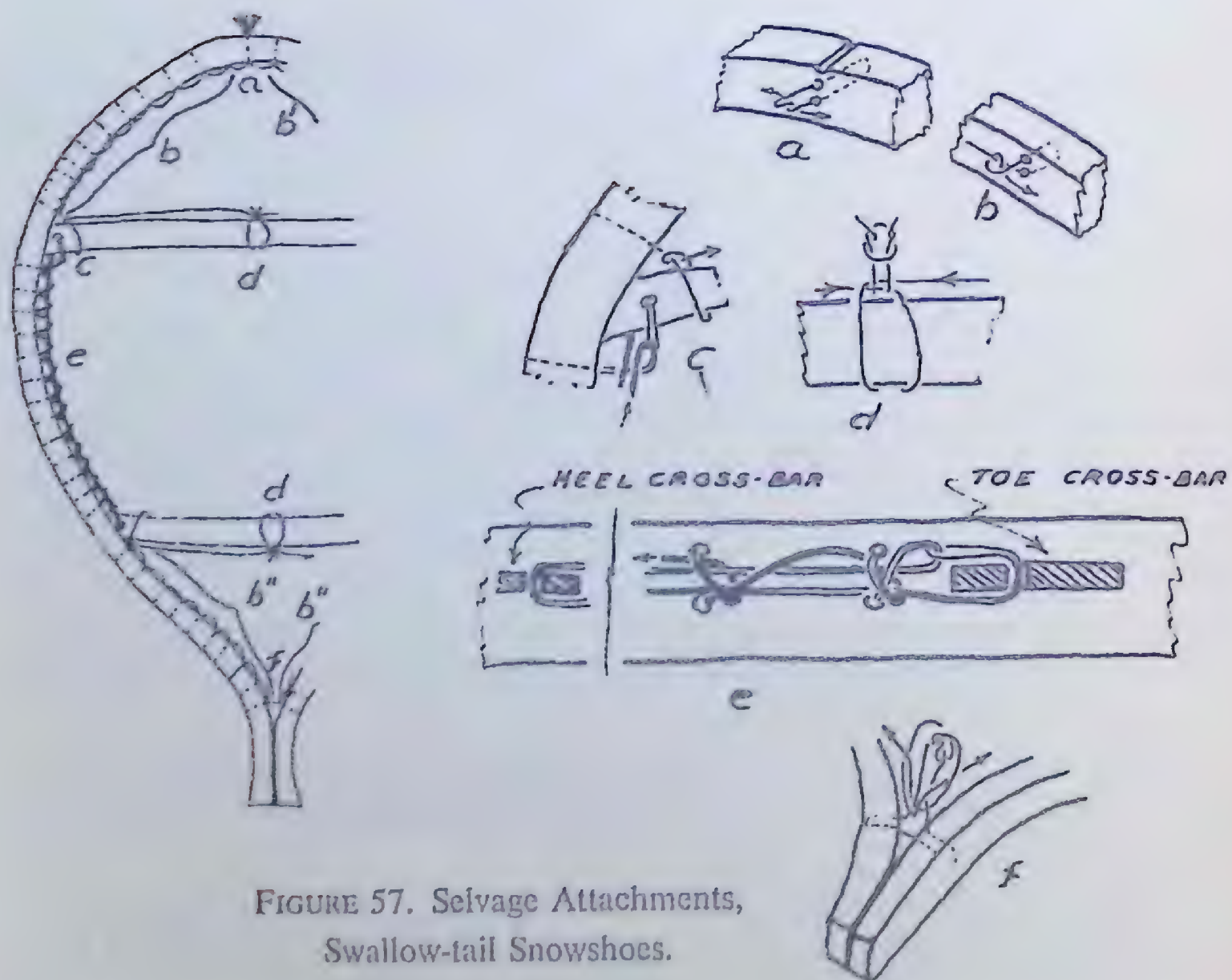


FIGURE 57. Selvage Attachments,
Swallow-tail Snowshoes.

from moose or caribou hides which had been frozen and scraped but not treated with oatmeal or brains. Doubled thongs were attached at the centre of the toe area (Figure 57, a) and tail (f), and one end of the thong was secured along one side of the frame (b) and the other end along the opposite side (b') until the toe crossbar was reached (c). The ends of the thongs were then secured at the centre of the crossbar (d), and the thong was attached in the same manner in the heel area. The crossbars were wrapped with string to hold the selvage in place until the snowshoes were laced. Selvage thongs were sometimes placed between the crossbars (e). If not, the frames in this region were thinned slightly on both the top and bottom surfaces. This was done to countersink the lacings which passed about the frame to reduce wear on them.

In rare instances, tassels were placed at the centre of the toe and along the sides of the tail of the frames. In this case, depressions were made at the pair of holes at these points to receive the tassels. These were held in position by passing the selvage over them when the latter was inserted through the holes in the frame. Holes were then drilled through the tail from one side. Nails were inserted and clinched. The desired length of the tail was approximately one palm width. Any excess was sawn off, and the end was slightly bevelled.

Beaver-tail snowshoe frames were made in much the same way as swallow-tails. Each frame proper consisted of two pieces—one for the toe and one for the heel. They were joined together by a lap splice on each side of the frame. Occasionally, an old and experienced craftsman made the frame with one piece of wood.

The wood was obtained as previously described. One piece for each frame was several inches longer than the other. After the maker returned to camp, he removed the bark. The pieces were then further shaped and marked on what would be the top surface of the finished frame. Marks were drawn near either end of each piece, at the centre, and at points several inches to either side of the centre mark. They were placed at the same intervals on each piece and served as guides in the manufacture.

The centre section of the heel piece was slightly thinned on the inside surface. Following this, the heel piece was bent in the area of the three centre marks. String was attached at the two ends and tightened as the piece was bent. Bending continued until the ends met. A semi-circular piece of wood was then prepared and tied in the bend of the tail. Next, small pieces of wood were placed on either side of the frame at some distance above the tail bend and bound in place with string. They and the string were then moved downward until they were approximately opposite the top edge of the semi-circular piece of wood. This held the tail bend rigidly in place. The ends of the heel piece were now bent outward.

Next, the wood for the toe half of the frame was prepared. The inside surface was cut to produce a tapering end about 12 inches long. The same procedure was followed at the other end and at both ends of the heel piece. Then, one end of the toe piece was tied to the outer side of one end of the heel piece, forming a lap splice. The marks near either end were placed opposite each other. First, the frame was bent at the tied area and then progressively toward the centre of the toe piece. A string was secured at the bend in the heel piece (the tail) and the free end of the toe piece. This was tightened as the wood was

bent. After the toe piece was bent into an arc, the two halves were untied and then tied together at the other side of the frame, and the bending was repeated. If the wood began to splinter or crack at a low angle while being bent, the area was smoothed with a crooked knife and wrapped with string. If it splintered at a high angle, nothing could be done to remedy it, and the piece was discarded. The free ends were brought together, the marks at the ends were placed opposite one another, and the pieces were tied together. Next, a spreader was inserted between the marks on either side of the frame.

The second frame was prepared in the same way. When it was ready, the two frames were tied together as in the case of the swallow-tail snowshoes. They were then placed overhead inside the lodge to dry.

After the frames were dried, the splintered areas about the tail were smoothed with a crooked knife. Following this, thin wooden pegs were made. The binding securing the lap splice on one side was removed, and two holes were drilled through the frame at this point from the outside. The wooden pegs were inserted in these, one from each side of the splice.

Next, measurements were made to determine the proper placement of the second lap splice. A string was held at the centre of the toe piece and from it an arc was made from the end of the heel piece in the spliced section to the opposite side of the frame, and the spot on the toe piece was marked. The end of the heel piece on this side was placed opposite this mark. Holes were then drilled, and the frame was pegged as above. Finally, the ends of the pegs were broken off, and the frame was smoothed.

Crossbars were then prepared and dried in the same way as for swallow-tail snowshoes. While the crossbars were drying, further work was done on the frames. The insides were marked for the crossbar slots which were gouged out with a small chisel (*see Woodworking Tools*). After this, the frame was smoothed, and a string was tied about the tail to preserve the bend while crossbars were inserted. Then holes for the selvage thongs were drilled in the toe and heel areas. These were placed in the same way as for the swallow-tail type. The crossbars were removed, and the frame was again smoothed. Then the area about each pair of selvage thong holes was slightly hollowed out on the outside of the frame. Following this, the crossbars were inserted.

Next, the lap splice was finished. A notch was cut on the outside near each end of the toe half of the frame. The outside surface, for approximately ten inches, was removed at a low angle extending to the bottom of the notch. Two holes were drilled through each splice near the wooden pegs, and nails were then inserted in these from the outside and clinched. The frame was now thinned on the top and bottom between the crossbars, and all surfaces were smoothed. Then the selvage thongs were secured in the toe and heel areas as for the swallow-tail snowshoes. At the same time, three tassels were placed at the toe and one or three at the tail.

The lacings for snowshoes were made from unsmoked caribou and moose hides. The thong employed for the area between the crossbars was from large and relatively thick hides, whereas that in the toe and heel areas was from small hides. Caribou hide thong was preferred in the toe and heel areas of beaver-tail snowshoes, where very fine thong was required. Thong made from beaver and otter pelts was said to be used occasionally.

Before snowshoes were laced, the thong was stretched. First, a roll was soaked in warm water for approximately a minute. The operator seated himself or herself on the floor with right leg extended. Next, the maker held the end of the thong in the left hand and began to unroll the ball. After sufficient thong was unwound to pass it once about the sole of the right foot, it was stretched. To do this, the thong near the roll was grasped with the teeth and pulled taut with the left hand. The right foot was held rigid. With his or her left hand, the operator grasped the thong about halfway between the teeth and right foot, and pulled. More thong was then unrolled, and the tested section was looped about the left hand. The process was continued until the thong broke. If the thong withstood the pulling, it was eventually cut after an adequate length was tested. The tested piece was then wound about the thumb and little finger of the left hand to form a coil. When all the thong was stretched, the coils were wrapped in a moist cloth.

Snowshoes were laced primarily by the women, although the men knew how and sometimes helped. All lacing was done in a hexagonal weave (Davidson, 1937, p. 33-4) (Figure 58). It was attached (Figure 59) to a selvage thong (Davidson, 1937, p. 36) in the toe and heel sections and sometimes in the centre section of swallow-tail snowshoes. On beaver-tail and some swallow-tail snowshoes, the lacing between the crossbars was secured to the frame by wrapping (Davidson, 1937, p. 36) (Figure 59). First, the frame was wrapped once with cloth. The edges of the cloth were sewn together on the inside of the frame wherever there was a possibility that the lacing might slip. Knot 'b' was used only on the right-hand side of the toe crossbar and left-hand side of the heel crossbar.

Snowshoes were laced with a 'needle' (*see Tools for Lacing and Unlacing Snowshoes*). If the needle stuck in passing between the lacings, a small stick was used to drive it through. At intervals during the process of lacing, the women pushed the strands closer together with a 'mesh evener' (*see Tools for Lacing and Unlacing Snowshoes*). At the completion of lacing, the strands were evened with the same tool.

The thong and the area being laced were kept moist. Generally, the thong was removed from the coil as needed. Occasionally, it was wrapped about a pair of crossed sticks. When a snowshoe was being laced, it was leaned against some object such as a box or vertical pole. The frame might be tied to a small post.

The toe and heel sections were laced first, the centre section last. The directions of various steps for lacing are given in Figure 60. The toe was done in three steps. Sequence A (Figure 60) was executed first. Then sequence B was alternated with A for a few times, and finally the area was finished with sequence B. The heel section of beaver-tail snowshoes was laced in two steps. The lacing commenced with sequence C and was soon followed by sequence D (Figure 60). The heel section of swallow-tail snowshoes was laced following sequence E. The lacing in the centre section of both swallow-tail and beaver-tail snowshoes proceeded according to sequence F. After about one-third to one-half of the lacing in the centre section was completed, a spreader (*see Tools for Lacing and Unlacing Snowshoes*) was inserted at the location of the toe hole. One end fitted against the crossbar and the other

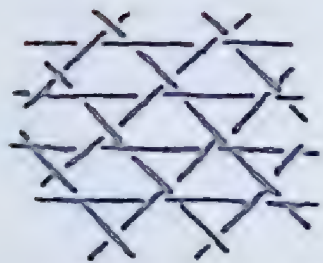


FIGURE 58. Snowshoe Lacing.

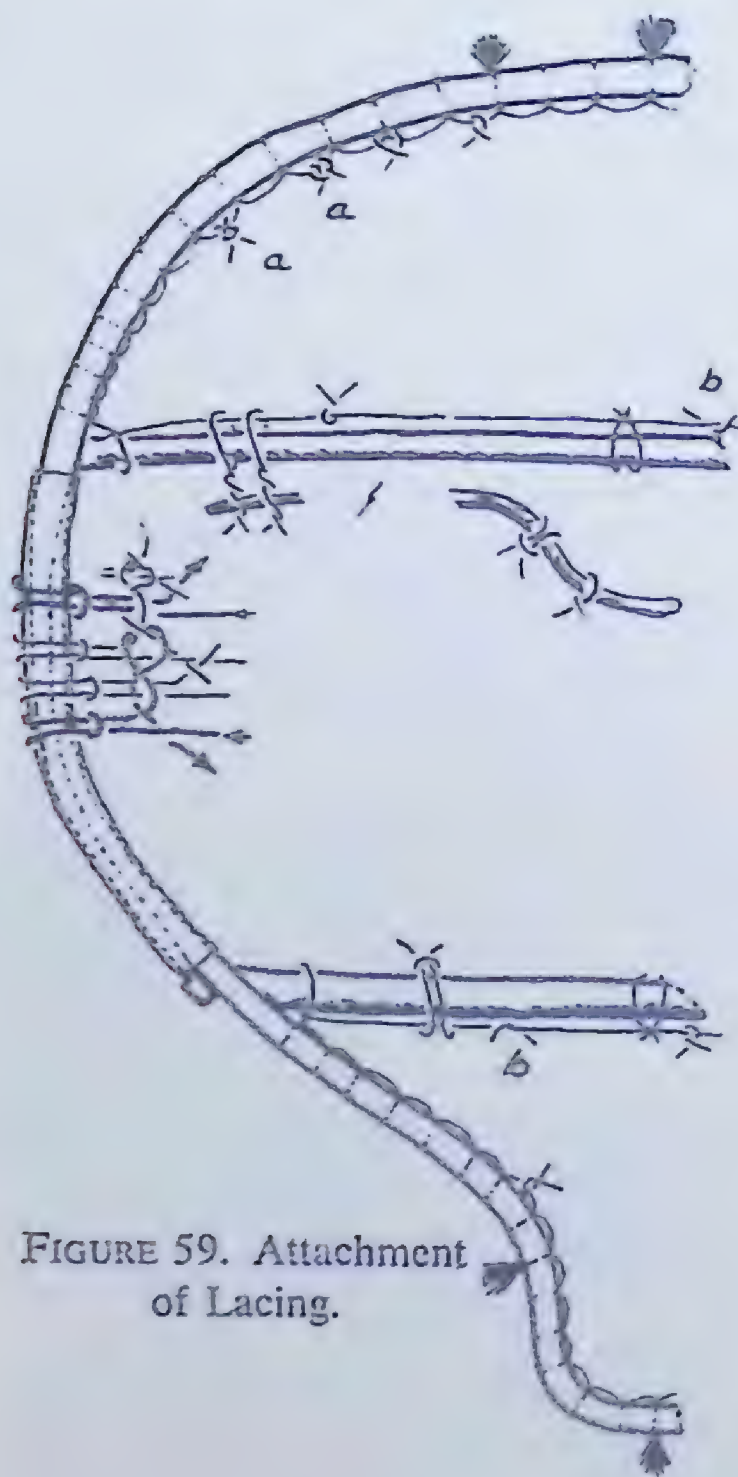


FIGURE 59. Attachment of Lacing.

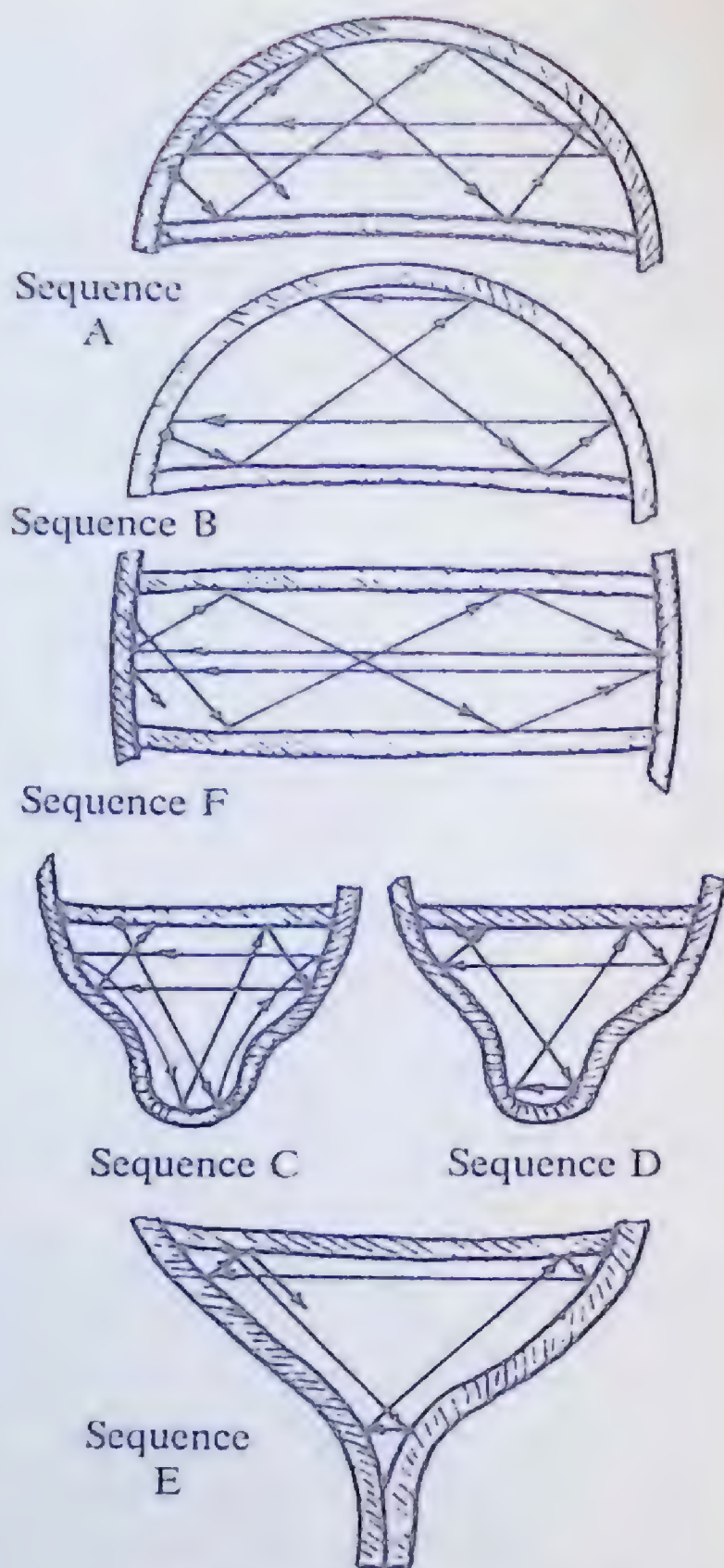


FIGURE 60. Directions in Lacing Snowshoes.

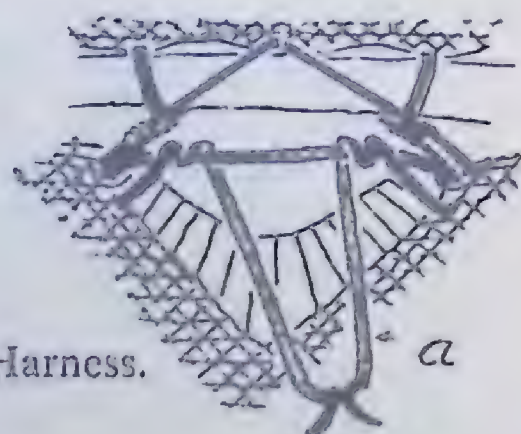


FIGURE 61. Snowshoe Harness.

against the lacings. This held the toe hole open while the lacing was completed.

After the lacing was finished, reinforcing thong, heavier than that used in lacing, was wrapped about the toe hole and inserted in the lacings where the foot would rest.

As beaver-tail and 'pointed' snowshoes were laced, geometric designs were made in the woven areas (Figures 53 and 54) of the toe and heel and occasionally along the sides of the centre section. One informant, about thirty-five years old, described what she termed the 'old type' beaver-tails which her mother had made when the informant was a girl. The centre section was done with fine babiche, and a design was put there, as well as in the heel and toe sections. All the designs were painted red, and there were two dots on the toe bar and paint on the outlines of the centre weaving. An old pair of beaver-tails seen by the author conformed to this description, with the addition of four extra tassels on each snowshoe, two just forward of the toe crossbar and two just behind the heel crossbar. After beaver-tails were laced, the thong between the crossbars was rubbed with soapy water. The excess water was removed by tapping the lacings with the fingers or a stick. The frames were then hung outside the lodge for about a week to bleach the lacings in the centre section. This, of course, could only be done during the winter months.

Care was taken to preserve snowshoes as long as possible. After each use, the snow was knocked from them. This was done not only to prevent deterioration, but also to keep the snow from melting, soaking into the frames and lacings, and later freezing, thereby increasing the weight. If the lacings became wet, the snowshoes were taken inside the lodge and dried. Generally, they were hung outside to prevent the dogs from chewing the lacings. Holes cut accidentally or worn in the lacings were repaired by re-weaving. Often it was necessary to replace the reinforcing thongs about the toe holes, since these wore out rapidly. They were removed with a lynx jaw or a jackknife can-opener (*see Tools for Lacing and Unlacing Snowshoes*).

Generally, the frames for swallow-tail snowshoes wore out before or at about the same time as the lacings. With beaver-tails, the lacings wore out before the frames. When this happened, the old lacings were removed with a lynx jaw or a jackknife can opener. The lacings were kept moist as the thong was removed. Long pieces of thong were rolled up and saved for future use. The frames were then smoothed and re-laced.

The snowshoe harness (Figure 61, a) was made from a strip of unsmoked moose hide. The middle of the strip was placed over the wearer's toes. The ends were then passed through holes on either side of the toe hole and brought back through the snowshoe lacings, passing over and then under the toe section. This was done so that when the heel was raised in walking the strap would pull upward on the toe section, reducing pressure on the wearer's toes. After the ends were wrapped about the toe section several times, they were brought back about the ankle and tied. The ends of the tie were tucked under the moccasin lacings to prevent the foot from slipping out of the harness. Since the harness was loose, it was not untied when the snowshoes were removed. The size of the harness could be adjusted by either wrapping or unwrapping the thong from the toe section without untying the ends.

Toboggans

Toboggans (Figure 62 and Plates XVB and XVI A) were of three general sizes—large, medium, and small. The small size was more of a child's toy than a transport device. Large ones were approximately 10 feet long, with a maximum width of 13 to 14 inches, the top of the curve in front being about 1½ feet above the bed of the toboggan. The medium sizes had a length of from 6½ to 7 feet, with a maximum width of 8 to 9 inches, the top of the curve being about a foot above the bed. The maximum width for both toboggans was located from one-fifth to one-sixth of the total length from the front. The small toboggans were of approximately the same proportions but were only a foot to 3 feet long.

Toboggans were employed principally during mid-winter when no trail existed. Sleds were generally used when there was a well-packed trail and in the spring and fall.

Large toboggans were often employed to transport boughs, occasionally firewood, and water in pails if the source was located at some distance from the camp. In the latter case, snow was added to the water to reduce spilling. Medium ones were generally used by the men on overnight trips to inspect trap-lines or to hunt. Both sizes were used for moving camp and supplies and for bringing home large game. The larger of the small ones were occasionally employed to carry traps and game on one-day trips from camp.

Toboggans were generally manufactured by the men during the late fall and early winter. It took from twelve to fifteen hours to make one, depending upon the size. Either larch or birch wood was utilized for the bottom, and birch for the crossbars and plaque. Green wood was generally used, but deadwood, if soaked for a long time, could serve. Sapwood was not considered proper for toboggan boards; heartwood was desired. The pith made it necessary to soak the wood for a long time before it could be bent.

To manufacture a toboggan, a larch tree was selected which was a foot or more in diameter at the base. The tree was felled by notching and sawing close to the ground; then it was sawn through about 10 to 12 feet from the butt. Splitting tools were then made (*see Woodworking Tools*). At the small end of the log, a cut was made across the diameter with an axe, and a wedge was driven into the cut. As the log began to split, wedges were driven into the crack along the trunk continuing it toward the butt until the log broke in half. If the grain was slightly twisted, a straight split, the length of the log, was started with an axe.

Each half log was trimmed to an edge grain board. During the trimming, one end of a half-log was placed on edge across a pole resting on the ground. It was held in place with the operator's feet. First, the split surface was smoothed; then the outside was trimmed until a board about 1½ inches thick resulted.

The ends of the boards that came from the butt of the tree formed the front curve of the toboggan. The reason for this was that there were fewer knots in this part of the tree which might cause cracking when the ends were bent. The outer side of the tree formed the bottom of the toboggan.

Next, a post was erected which acted as a 'vise' (*see Woodworking Tools*). A section of the board near the end was inserted on edge in the split at the

top of the post. The other end rested on the ground. First one side was trimmed and then the other until the board was approximately one-half inch thick. Part way through the process, the boards were laid on the ground and the edges were trimmed roughly to the desired outline of the toboggan. The narrowest width was at the butt ends of the boards which were to form the front curve.

The workman now returned to camp, buried the boards in snow, and started to work on the crossbars (Figure 62, a and a') and the plaque (b). They were first roughly shaped with an axe and then finished with a crooked knife. The bottoms of the crossbars were slightly convex longitudinally. This produced a similar surface on the bottom of the toboggan after the crossbars were attached. The second crossbar (Figure 62, a'), which was placed near the bottom of the front curve, was slightly larger than the rest. Near one end and on the bottom side of each crossbar, a notch was cut with a crooked knife. The notch for the second crossbar was slightly larger than the others, thus allowing for the attachment of a rope, by which the toboggan was pulled. The plaque and the crossbars were hung inside the lodge to dry.

After the hunter had made the plaque and the crossbars, he planed both sides of the boards. A 'toboggan planing log' was constructed (*see* Camp Equipment), and a board was placed on the log and planed toward what would be the front of the toboggan.

Following this, the crossbars were taken down, lined up by eye, and trimmed where necessary with a crooked knife. The top and sides were then painted, and the plaque was decorated with incised or painted designs (Figure 63).

Next, the outside edges of the boards were cut symmetrically with a crooked knife, and the front end of one board was sawn to match the other. Then, with a crooked knife, starting about an inch from the front end and on the top side, the boards were thinned to two-thirds or three-quarters of their original thickness for a distance of approximately five to six inches. The front end of a board was immersed in a kettle of hot water. At the same time water was poured farther up the board. This was continued for about a minute. The board was then removed from the water, and a wooden clamp (*see* Woodworking Tools) was tied across the front end, which was bent upward. At intervals, the end was soaked in hot water. Occasionally, the thinned area was further reduced in thickness. The bending continued until the front curve was partially formed. The bend was not secured in any way, and the board after being bent returned to its original shape. The process appeared to do no more than limber the wood. The second board was then treated in the same manner.

Following this procedure, the two boards were placed side by side and secured with wooden clamps. The plaque (Figure 62, b) was attached to the front end of the two boards on the bottom side. Holes were drilled through both the boards and the plaque, and nails were inserted through the holes and clinched. Crossbars were attached, starting at the front and working towards the rear of the toboggan. A crossbar was placed the width of the bed at the appropriate location, and the correct placement of the second notch at the other end of the crossbar was determined. The notch was now cut with a crooked knife. Formerly, the crossbars were held with thong lashings

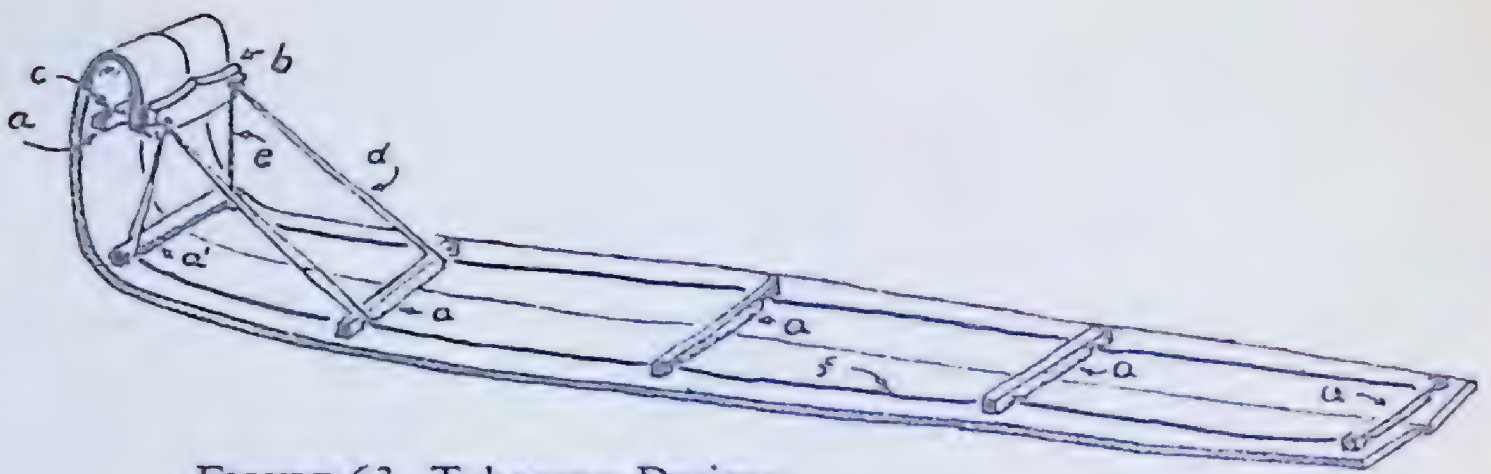


FIGURE 63. Toboggan Designs.

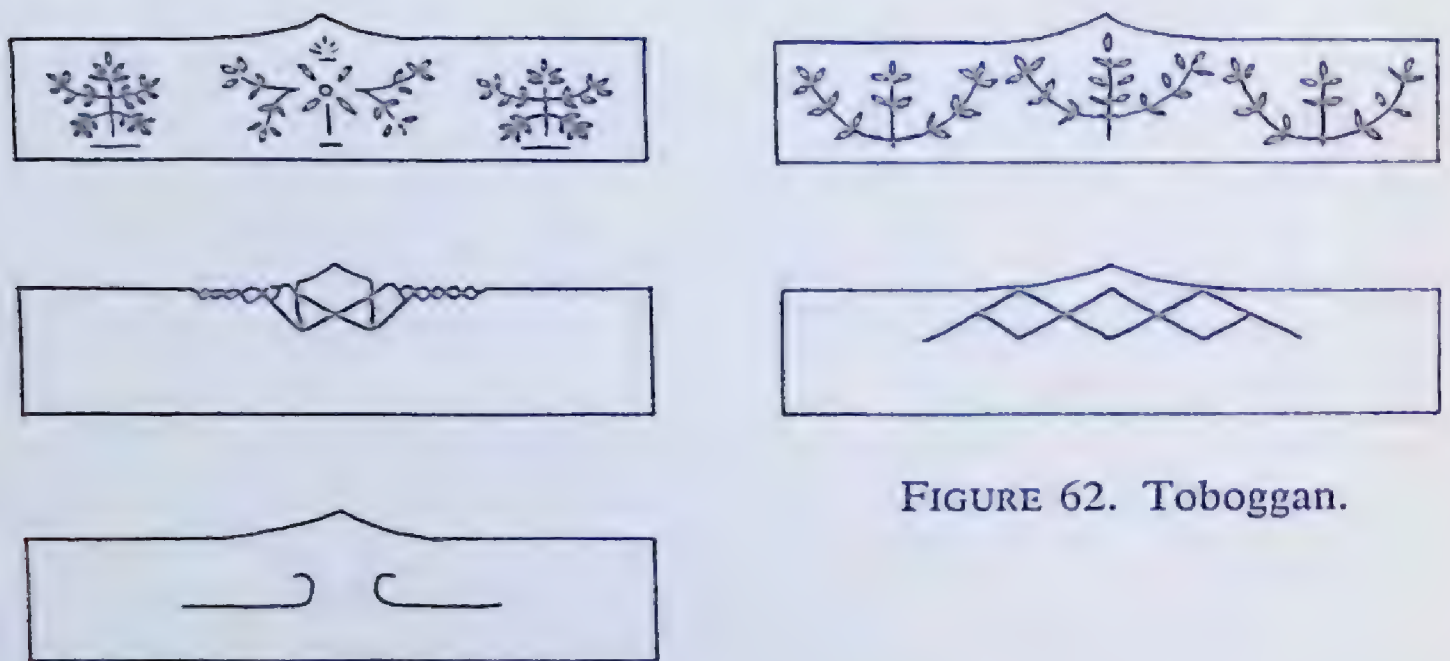


FIGURE 62. Toboggan.

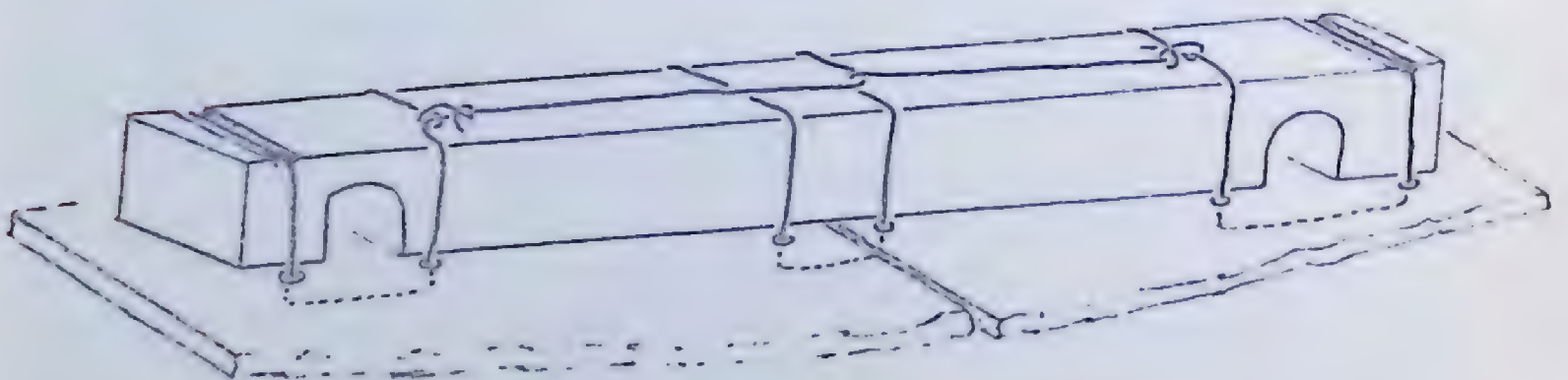


FIGURE 64. Crossbar Attachment.

(Figure 64). The lashings, except along the front curve, were sunk in the grooves on the bottom side to prevent wear; today, crossbars are held with nails.

After the notch was cut, four or more holes were drilled in the crossbar. The spacing of these was then marked on the bed of the toboggan, and holes were drilled at these points. They were gouged out slightly on the bottom side so that the head of the nail would be flush with the surface. This was not done for the first crossbar at the front curve. Nails were inserted from the bottom side of the toboggan and clinched. The ends of the crossbars were

sawn off about halfway between the edges of the toboggan and the notches. The plaque was sawn off flush with the edges of the boards.

At this point, the clamps were removed. The front, after repeated immersions in hot water, was slowly bent into final shape. When partially bent, two holes were bored through the plaque and the boards near the outer edges. Several strands of string were run through the holes, and one strand (Figure 62, c) was inserted through the notches in the first crossbar. Snare wire was passed through the holes and around the outer edges of the boards and plaque, and the ends were then twisted together until taut. The front was bent once more, and the string was tightened until the desired curve at the top of the front curve was achieved.

Next, a second string (d), secured at the holes in the plaque, was passed through notches in the third crossbar. The main part of the front curve was bent, and at the same time these strings were tightened. After this, a third set of strings (e) was run through the notches in the second crossbar and attached to the plaque at the point where the other strings were secured. Finally, a cord was run through the notches in the crossbar passing along the sides and across the front (f).

Birch toboggans were constructed in the same way as larch ones except for minor differences. The boards were made thicker since the wood was softer and wore more rapidly. Also, the clamps were left in place until the front curve was thoroughly dry.

To load a toboggan, a tarpaulin was first laid across the bed, and supplies, packed in duffle bags, were placed on the tarpaulin with the heaviest part of the load near the front. The sides of the tarpaulin were then drawn up tightly over the load and lashed in place. The middle of the lashing cord was attached by a lark's head knot near the centre of the cord along one side of the toboggan. One end was used to secure the front half of the load and the other the rear half. Care was taken that no part of the load extended beyond the sides of the toboggan. Guns were tied on top of the load, and axes were slipped under the lashing cord. As much as three hundred pounds could be drawn on a large toboggan by one man when snow conditions were suitable.

Toboggans were drawn by one person. A harness, consisting of a tumpline or rope, was attached to the second crossbar situated at the base of the front curve, and the rope was passed across the individual's chest and outside his or her arms. The arms were then brought out, up, over, and under the rope. One hand at least was generally employed to grip the rope for control.

Sometimes the individual was aided by a dog harnessed (*see Sleds*) by a long rope to the front of the toboggan just below the first crossbar; the rope extended back between the man's legs. At other times, only dogs were used. From one to three dogs were attached to the toboggan, tandem-fashion. The single or lead dog of the team wore a harness. The others were in shafts (*see Sleds*). The use of dogs was apparently a relatively recent innovation copied from dog-sled driving.

During very cold weather, it was difficult to pull toboggans since ice formed on the bottom. From time to time, a small tree had to be cut and placed at right angles across the trail to scrape off the ice as the toboggan glided over it. When the weather was warm, a moose 'leg-skin sheet' or beaver skins were

secured under the toboggan, allowing it to slide more easily and preventing it from slipping back on hills.

The 'leg-skin sheet' was made from the skins taken from the metapodial regions of moose. The hair was left attached. The skins were sewn together to form a sheet several feet wide and about six feet long, the long axis of the skins being parallel to the length of the sheet. The skins were arranged so that the grain of the hair was all in the same direction. Holes were cut along the long sides, and the sheet, which was folded up over the lower part of the front curve and the edges along the sides, was placed lengthwise under the toboggan at the forward end. Lashing cords were run through the holes over the top of the load, the hairs pointing toward the rear.

Beaver pelts, employed for the same purpose, were those secured during the summer. They were scraped clean of flesh but not dehaired. Perforations were made along the long sides, or a piece of cloth containing holes was sewn to the edges. Two or three pelts were placed under the front of the toboggan, shingle fashion, the forward one overlapping the second, and so on. They were arranged with the hair pointing toward the rear and were lashed in place, as was the 'leg-skin sheet.' When the pelts were not in use, they were rolled up with the fur side out and stored out of dogs' reach.

When not in use, toboggans were usually stood on end with the underside of the front end leaning against a tree or cache rack.

Sleds

Three types of sleds were known. These were the canoe-sled, the Eskimo sled, and the European sled. There were several varieties of the latter.

The canoe-sled was an aboriginal vehicle among the Mistassini Indians. It was drawn by one man or in more recent times by dogs but is seldom used at present. The sled had two narrow, rather thin runners which curved upward slightly at either end. There were four stanchions, one near each end of the runners. They were not individual pieces of wood but part of the runners, being cut from the same piece of wood. The two runners were connected by two transverse crossbars attached at the tops of the stanchions.

The canoe-sled was employed to transport canoes, especially during early spring, and to move supplies. When a canoe was carried, it was placed, right side up, the length of the sled and securely tied to the crossbars. The weight of the canoe was said to flatten the curve at the ends of the runners. To prevent this, ropes were secured to the ends of the runners, which were then bent upward; the ropes were tied over the top of the canoe. When supplies were carried, five poles were first laid the length of the sled. These were approximately as long as the sled and were equally spaced. The three centre poles were tied to the crossbars, and the ends of the side poles were tied to the ends of the runners. This preserved the curve in the runners when a load was added.

The Eskimo sled was acquired from traders at Rupert's House approximately fifty years ago. Apparently, within a quarter of a century, it was replaced by the European sled. No detailed information could be obtained regarding the Eskimo sled. It was apparently made with solid wooden runners and shod with mud, which was then allowed to freeze. After the mud was frozen, the sled was placed on end, and water was poured on the mud along

the upper end of the runners. As it flowed down the runners, it froze to produce a smooth surface. The sled was drawn by five or six 'large' dogs, presumably of Eskimo origin, attached to the sled by rope traces. The Eskimo sled was not considered good in very cold weather, since the mud chipped if the runners struck a concealed stick or stone.

The European sled, and presumably the shafts, were first obtained from Lake St. John about twenty-five to thirty years ago. This type soon replaced the Eskimo sled and gradually the canoe-sled. The European sled was from 6 to nearly 7 feet long, approximately 2 feet wide and 6 inches high, and the front was nearly a foot high.

There were several varieties. Two had solid runners. The crossbars in one of these forms were rectangular in cross-section and were set into the runners from the top. This method of attachment may have been copied from the Eskimo sled. The crossbars in the other variety (Figure 65) were circular or elliptical in cross-section and were inserted in holes drilled near the top edge of the runners. A rope (Figure 65, a) was secured about the outside top edge of the runners either by using bent nails or by passing the rope through holes in the runners and about the crossbars (b). This rope performed a similar function to that along the sides of the toboggan. There was a hole (c) through both runners for the attachment of shafts, which were placed from 12 to 15 inches from the front end, just below the top of the runners.

A third variety of sled (Figure 66) lacked solid runners. Instead, a number of stanchions (d) joined the runners (b) and outside floor slats (c). This particular variety is a copy of those commonly employed by present-day prospectors.

Formerly, sleds were shod with a thin strip of birch. Today, the shoes are of iron obtained from the trading companies.

Only the third variety of European sled was observed under construction. The wood for the runners (b) was taken from a live larch tree. The runners were roughly shaped with an axe and then finished with a crooked knife. The front ends of the runners, which were made from the butt end of the tree, were thinned slightly to facilitate bending for the same reason that toboggans were. The bottom surface was made slightly convex longitudinally, allowing the finished sled to turn more easily. A wooden clamp (*see* Woodworking Tools) was then tied to the front end of one runner, and the end was immersed in hot water for a few minutes and then bent. This sequence was repeated until the desired curve was achieved. After the second runner was shaped, the two were placed side by side and secured with wooden clamps, one across the bent ends, another just below the bend, and others at several points along the length of the runners. The front was again bent and held in position with strings, which were tied to the front clamp and a clamp near the middle of the runners. Two more clamps were secured at the bend, and the runners were then placed overhead to dry.

The crossbars (Figure 66, d) and stanchions (a) were made of birch. They were prepared while the runners were drying. They were roughly shaped with an axe and then hung inside the lodge to dry.

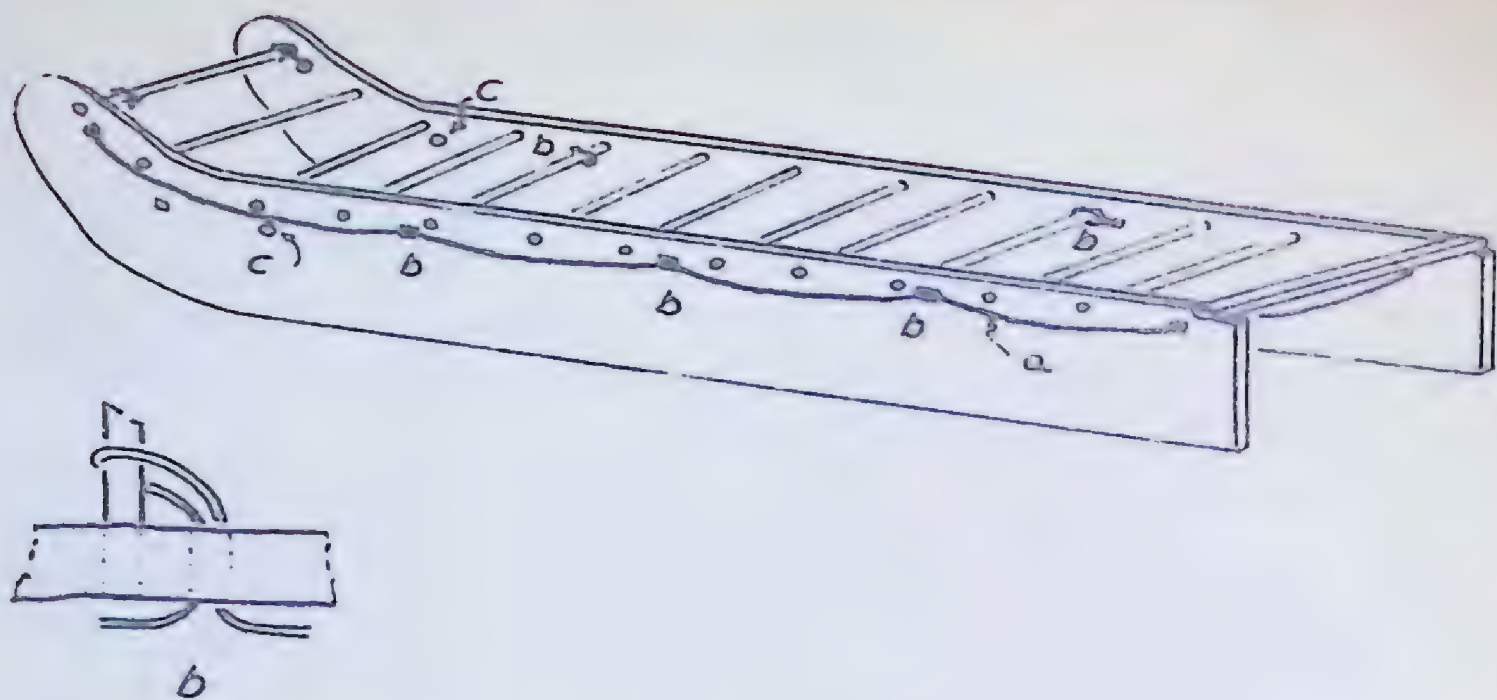


FIGURE 65. European Sled.

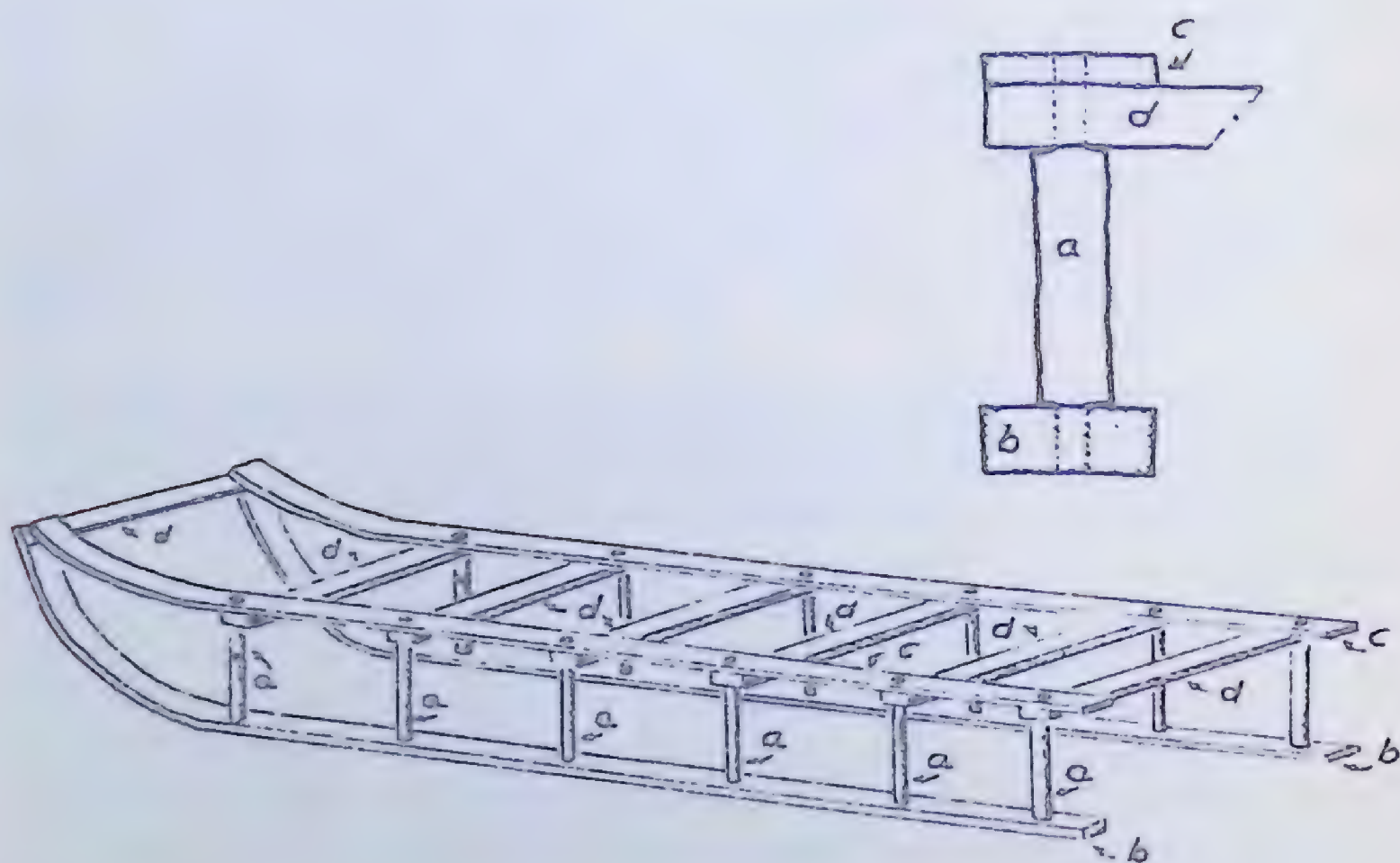


FIGURE 66. European Sled.

At the end of a week, the runners were taken down, untied, and smoothed. The outside floor slats (c) were then made. In one case, the wood from an old toboggan was used for these. The toboggan was sawn into four narrow strips, which were nailed together in pairs to form the slats. The front curve of the toboggan was utilized for the slight bend at the front of the sled. Holes were drilled in the runners and in the slats opposite each other. The holes at either end were made larger and elliptical in outline by drilling two holes which slightly overlapped each other and by then cutting away the remaining wood.

The stanchions and the crossbars were then finished. The stanchions were circular in cross-section with a slightly larger diameter than the holes in the

runners and slats, with the exception of the last inch or so of each end which was reduced in diameter to that of the holes (Figure 66, a). The crossbars were rectangular in cross-section, and a hole was drilled near each end.

Then the parts were assembled. The ends of the stanchions were inserted in the holes in the runners, and the runners were then placed side by side. The tops of opposing stanchions were joined with the crossbars, the holes in the latter slipping over the tops of the former. Following this, the outside floor slats were added. At the front, a crossbar was inserted between the runners and slats. Holes were drilled through the three pieces, and nails were inserted and clinched. Next, holes were drilled near the ends of the runners and slats. Bolts were inserted spanning the runners and slats and were drawn tight to hold them firmly in place. The front ends of the runners and slats were sawn flush with the front crossbar. The ends of the stanchions projecting above the slats were sawn flush with the top surface. Iron shoes were then secured with screws to the runners, commencing at the front.

Shafts were of two types: those attached nearest the sled (Figure 67) and those in second place. They were made of birch wood. The shafts nearest the sled consisted of two thills, each about 5 feet long, joined near the sled by a crossbar. A hole was drilled near the proximal ends and either one or two holes at the front end. The holes at the proximal ends were used when the shafts were tied to the sled. The first holes at the distal end were used when a second pair of shafts was attached. The other holes were for securing a dog collar between the thills. The collar was made of a wooden hoop padded with moose hair and wrapped with cloth.

The second set of shafts also consisted of two thills. They were not joined to one another, except by a collar suspended between them at one end. They were approximately 4 feet long. Holes placed near the proximal end of the thills were used for tying them to the outside of the first pair of shafts.

Makeshift shafts were sometimes constructed. The thills were made from two unpeeled spruce saplings. Another stick was cut to a wedge shape at either end and acted as a crossbar. Near the end of each thill a longitudinal cut was made, and the ends of the crossbar were inserted. A collar was suspended between the other ends of the thills, and the shafts were tied to the front of the sled.

Generally, one to three dogs were harnessed to each sled, tandem fashion. The first and second dog were hitched in shafts, and the head of the animal was pushed through the collar. A strap was tied to one thill, passed over the back of the dog and attached to the other thill. When there were three dogs, the lead animal was attached by a canvas harness (Figure 68) and trace to the second dog. One strip formed a collar; a second strip which encircled the dog's chest was tied underneath. The bights were joined by two strips of canvas passing over the dog's shoulders and by two more passing between the front legs. Posterior to the chest bight, these four strips converged on top of the back where a rope was attached to act as a trace. The other end of the trace was tied to one thill of the forward shafts.

A makeshift harness was sometimes improvised. A collar and chest bight of canvas were joined on both sides of the dog by ropes, which extended behind the animal where they were tied together. Here a trace was secured.

Sleds were used during the late fall and spring. During the winter, they were employed only on well-packed trails. They were used to transport firewood and boughs. Often, when this work was performed by the women, they drew the sleds instead of using dogs. In addition, supplies and canoes were moved on sleds. Equipment was carried on them when the men went to set or examine gill nets during winter.

Loads were secured as on toboggans. Canoes were not tied to sleds if the distance was short. They were placed lengthwise on the sled and right side up. For longer distances, they were securely lashed in place. Occasionally, poles were placed between the sled and either end of the canoe.

When sleds were not in use, they were reversed or leaned against a tree or cache rack with the shoes uppermost. A sled loaded and ready for a trip the following day was always turned on its side for the night. This prevented the runners from becoming frozen into the snow. During the spring, when the iron shoes became scratched, they were sometimes polished with a whetstone.

Canoes and Rafts

During the months of open water, canoes were the principal means of transportation. In an emergency, rafts were built.

Formerly, canoes were made of birchbark, some as long as 30 feet. Presumably, these were employed for freighting supplies for the trading companies. Roots were utilized to secure the various parts of the canoe, and black spruce gum sealed the joints between the various pieces of bark. In order to obtain a sufficient quantity of gum, the bark from a number of trees was removed to a height of about 7 feet. The trees were left for one or two years, and then the gum was collected. The gum was heated and mixed with fat from the common sucker and dore. Approximately one cup of fat was added to about ten quarts of gum.

Canvas canoes, obtained commercially, replaced those of birchbark, beginning perhaps fifty years ago. Canvas canoes were of two styles. One was pointed at both ends and locally called a 'paddler.' The other was square at one end and was referred to as a 'freighter.' The former was generally from 16 to 18 feet long and, as the name implies, was propelled with paddles. Freighters were 20 feet or more in length and recently have been powered with outboard motors.

Paddler canoes were used mostly for hunting and trapping excursions during the fall and spring. Freighters were employed primarily in moving supplies and personnel to and from the hunting lands, transporting firewood and boughs, and tending gill nets during the summer.

There were four ways of propelling a canoe—with paddles, poling rods, sails, or outboard motors. Canoe paddles (Figure 69) were apparently of aboriginal pattern since they were not similar to any of those sold by the trading companies. They varied in size depending on the age and sex of the owner and ranged in length from 3 feet or less to 5 feet. The largest ones were used by the adult men. These paddles had a blade width of about 15 inches and a length of 30 inches. Paddles were made of white and black spruce, the wood being obtained in exactly the same manner as the boards for a toboggan. After splitting the wood from the tree trunk, it was roughly

shaped with an axe. Then it was finished with a crooked knife and a plane and hung to dry. After drying several days, the blade was painted, generally green.

The poling rod, which was a straight pole, usually of green wood, was from 10 to 12 feet long and several inches in diameter. The pole was smoothed with a crooked knife to remove any knots which might otherwise bruise the hands. They were made whenever the occasion demanded. Today, conical iron points are often secured to the distal end.

Sails may or may not have been aboriginal. There was no means of tacking, and paddles were resorted to when it was necessary to cross the wind. The sail and rigging consisted of two poles, one for the mast and the other for a boom, and a tarpaulin. The mast was from 7 to 8 feet long. One end was cut in a wedge shape and placed between the two ribs located just aft of the second thwart, to which it was secured with a rope or tumpline. The boom was 6 to 7 feet long. One end rested in a loop attached to the stern side of the mast just above the thwart. It extended obliquely over the starboard side of the canoe at approximately a 45-degree angle. Three corners of the tarpaulin were tied to the top and bottom of the mast and to the free end of the boom. One end of a rope was tied to the fourth corner; the other end was attached to the free end of the boom. The direction of the sail was controlled with a rope.

The method of rigging a sail made it possible to dismantle it quickly in case of a sudden rise in the wind. The end of the boom was slipped from the loop, and it and the tarpaulin were tied to the mast.

Outboard motors were commonly used. These consisted primarily of 5-, 8-, and 10-horsepower Johnson's. When travelling on open water, the Mistassini Indians had a tendency to stay fairly close to the lee shore, even though a motor was used.

When rapids were encountered, one of three ways was employed to ascend them. If the current was weak and the water not too shallow, motors were used. If the current was stronger, poling rods were used. The canoe was managed by either one or two men, each with a rod, who, if there were two, stood one at the bow and the other at the stern. A man alone stood at the stern. They slowly pushed the canoe forward directly into the current. If possible, they guided it toward a sheltering rock. Once behind the boulder, they might rest momentarily and then move to another rock. This was repeated until the head of the rapids was reached. At other times the current was so strong that neither motors nor poling rods could be used, but it was not strong enough to necessitate portaging the canoe. Then the canoe was tracked. A rope was attached to the bow, and the craft was pulled upstream by men on shore. One or two men remained in the canoe and kept it away from rocks.

In descending rapids, the bowman chooses the route. Paddles were used. The canoe was not necessarily held directly with the current but was allowed to swing in the direction chosen by the bowman, even to the point where the canoe was occasionally at right angles to the stream. If the rapids were not 'rough,' a motor was sometimes used. In very shallow and small rapids, poling rods were often employed in place of paddles.

When it was necessary to transport a canoe overland to avoid rapids or to reach another drainage system, it was generally carried by one man. Two



FIGURE 67. Shafts

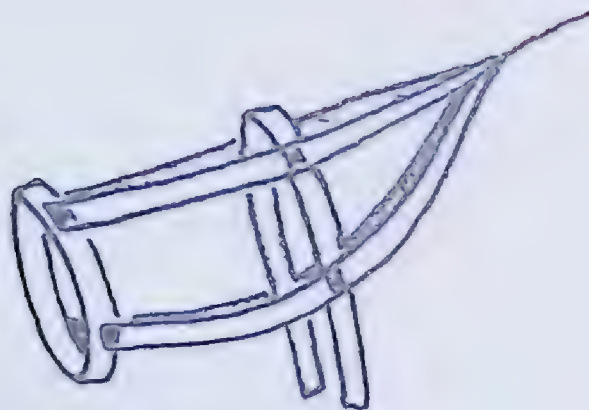


FIGURE 68. Dog Harness.

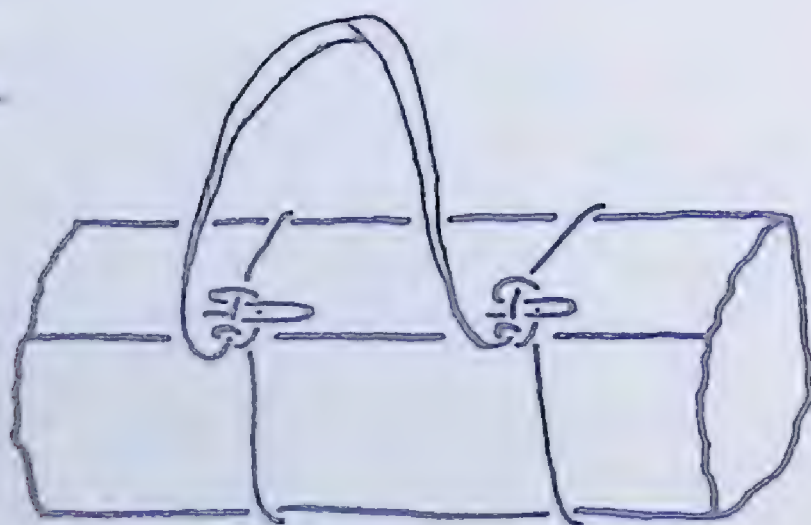


FIGURE 70. Tumpline.



FIGURE 69. Paddle.

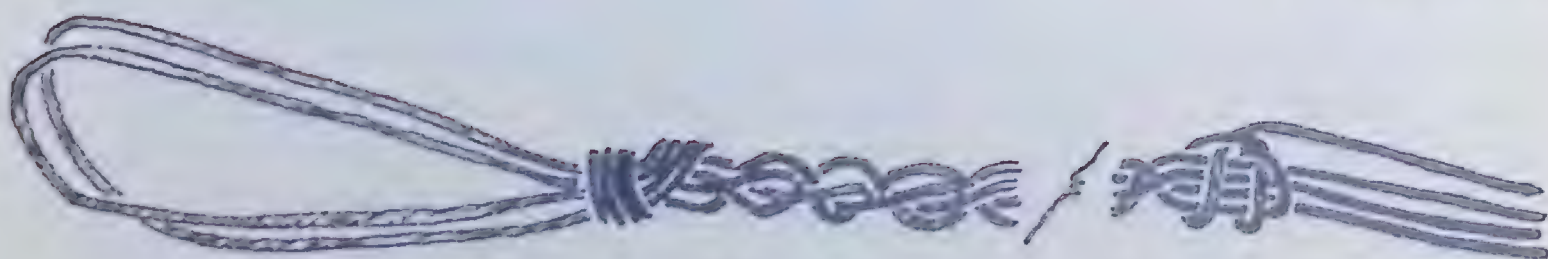


FIGURE 71. *nimapan*.

paddles were attached to the centre and forward thwarts. The blades were placed near either end of the centre thwart, and the handles were tied at the centre of the forward thwart. A tumpline was attached to the centre thwart. The canoe was placed upside down over the man's head. The blades of the paddles rested on his shoulders, and the tumpline passed across his head. Sometimes a rock was placed in the bow to balance the canoe. During winter, canoes were transported with canoe-sleds or sleds.

Canoes were generally beached bow first. Freighters were beached stern first if the landing was exposed to the wind. This was done to prevent the waves from splashing into the canoe when they struck the blunt end. If the shore was rocky, brush was laid as soon as possible on the stones where the canoe rested. Canoes were unloaded every night and turned over on shore. Only in exceptional circumstances were they left loaded all night.

Canoes were frequently painted, generally only on the bottom half where the most wear occurred. The area above the waterline was not repainted, not only because it was unnecessary, but also because it would increase the weight of the craft.

If the canvas was torn, the canoe was unloaded and turned over. A fire was built to one side. Two burning sticks were removed from the fire and held parallel to each other. The torn area was dried, and a commercial wax was heated and applied to the rip. The canoe was then immediately replaced in the water. The entire process of unloading, patching, and reloading required no more than twenty minutes. Sometimes the exact point at which the canoe was leaking was not observable. In this case, the hunter sucked the suspected area to locate the hole.

Canoes were recanvassed at the summer encampment. The men did this work, usually not long before starting the return trip to their hunting lands.

Canoes were bailed with any convenient metal vessel, even a frying pan. Occasionally, sphagnum moss was used as a sponge, and care was taken to keep the inside of the canoe free from sand which would increase the weight of the craft.

There were two methods of storing canoes for the winter. In one, several logs were placed on the ground, and the canoe was turned upside down on them. Care was taken that no part of the canoe was in contact with the ground. This method was used apparently as protection from theft, especially by whites, who were considered less trustworthy than fellow Indians. During the winter, the canoe would be covered with snow and hard to detect.

The other method consisted of building a stage 3 to 6 feet high on which the canoes were placed upside down. If the stage was exposed to the wind, the canoes were lashed to the frame. Canoes were generally washed before being stored for the winter to remove as much dirt and sand as possible from between the ribs. During the spring, before the snow had disappeared, canoes were placed on logs which rested on top of the snow.

If no canoe was available, rafts were constructed when it was necessary to cross water or to retrieve game. They were made of dry logs, each 10 to 12 feet long, held together with roots or ropes. In shallow water, the raft was pushed with a pole, but for deeper water a crude paddle was made.

Carrying-String and Bags

There were three pieces of equipment, besides those already mentioned, employed for the transportation of game and supplies; namely, the tumpline, the *nimapan* or ceremonial carrying-string, and hunting bags.

Tumplines, which were obtained from the traders, were used primarily during the summer to carry canoes and supplies over portages and to pack game. During winter, they might be used to pull toboggans. The tumpline was a leather strap 12 to 15 feet long, very narrow at the ends, but several inches wide at the centre. The ends were tied about the load (Figure 70), which was then placed on the individual's back with the wide centre section of the tumpline passing across the forehead.

The *nimapan* (Plate XVIB) was used to drag beaver and otter to camp over the snow, to support the head of a bear when the latter was portaged, and to carry porcupine. It was also used to support ceremonial caribou hides when they were hung outside the lodges. Two measured specimens were 6 and 10 feet in length. They were generally made of caribou thong, although one seen was made of string. Four strands of thong were plaited to form a 'rope,' at one end of which a loop was formed (Figure 71). The *nimapan* was dyed red. At intervals, coloured thread was attached.

To drag a beaver, the loop at the end of the *nimapan* was slipped over a stick thrust through the nostrils of the animal. It was tied through a hole in the cheek of the otter. The animal was placed on its back. The other end of the *nimapan* was doubled and tied to form a loop which encircled the hunter's chest. For transporting porcupine, the *nimapan* was doubled several times and then secured to a fore and rear leg of the animal. The porcupine was carried on the hunter's back with the *nimapan* passing outside his arms and across his chest. Although a tumpline was used to carry the main weight of a bear, a *nimapan* was employed to control the position of the head. It was secured to the bear's upper lip and used to pull the bear's head forward over the hunter's shoulder.

Both men and women carried hunting bags when they were working away from camp, particularly during the fall, winter, and spring. The men used them to transport traps, scent, lines, food, and game when hunting, or when setting or examining traps on one-day trips. They were used on longer journeys to carry food and tea pails. At these times, the bags were placed on the toboggan or sled in a location where they could be readily extracted at mealtime. They were also used by the men and women to carry lines, hooks, bait, and sinkers when they went to place set lines or to jig for fish. Women used them when setting or examining their traps.

The bags were made of canvas and varied somewhat in size. The largest and most commonly employed was approximately 2 feet long, 12 to 15 inches deep, and several inches wide. At the upper corners a carrying strap of canvas several inches wide was sewn. The bag was carried on the individual's back with the strap placed outside the arm and across the chest.

A wooden yoke was infrequently employed during the summer to carry water.

Dogs and Their Care

Three varieties of dogs were employed at one time or another by the Mistassini Indians. These include a small hunting dog, an Eskimo dog, and a mongrel. The latter is common today.

The small hunting dog stood about a foot high. It had hair of medium length, which was either a reddish or black colour with occasional patches of white. Formerly, each man owned one dog. They were used for hunting beaver during the winter, for locating hibernating bear, and for hunting moose (?), caribou, and 'partridge' (ptarmigan or Spruce Grouse). Today, very few of these dogs are seen.

Eskimo dogs were first acquired, according to one informant, about fifty years ago. They were obtained at Rupert's House when the Mistassini went there to trade during the summer, but previously they had been obtained by traders from the Eskimo who lived farther north. It was during such times that the Eskimo sled was acquired and the idea of dog traction.

Today, pure-blooded Eskimo dogs are not seen. Some of the mongrel dogs, nevertheless, appear to be at least part Eskimo. Apparently no attempt was made to practise selective breeding. The Eskimo dogs probably did not gain favour because of their tendency to attack people, especially small children.

Mongrel dogs were purchased from traders at Pointe Bleue some time after the acquisition of Eskimo dogs. At the same time, the European sled was obtained. The mongrels were somewhat smaller than Eskimo dogs, and there was a certain amount of variation in colour and length of hair. Whether they were of one particular breed when they were introduced is not known; they are certainly of mixed antecedents today. It was said that when they were first introduced, they were slightly larger than at present.

Each family had at least two adult dogs and occasionally several more. Every dog had an owner who might be of either sex. Dogs were named when they were puppies or sometimes later. Names consisted of such forms as *ckayu* and *cilu*, the nicknames for people; *nIpImUpayIhcan*, "I am running a motor"; *nImamanascen*, "I am getting boughs"; *nIwapAsIn*, "I am white"; or *nImAclIsIn*, "I am ugly" or "I am bad"; *pApi*, "puppy"; *sIyutis*, "sweety," referring to candy; or *cokAlAt*, "chocolate."

Both Eskimo dogs and mongrels were used for drawing sleds, but, as far as could be ascertained, they were never used for hunting. Occasionally, the mongrels were hitched to toboggans. They were employed to haul firewood and boughs, to move supplies, and to transport the necessary equipment for setting and tending gill nets. Generally, only the men drove dogs, although if the women had to collect wood or boughs at some distance from camp they also used them.

Dogs were worked in early winter when there was little snow on the ground, during mid-winter after a trail was broken, and in late winter and early spring when there was a crust on the snow. During the middle of winter, they were not driven a great deal because it was too difficult for them in deep snow. Instead, the men drew toboggans. If dogs were used, the small and lighter ones were preferred as they did not sink into the snow as much as the heavier ones. In early spring, when there was a crust on the snow, the larger dogs were preferred since they could haul heavier loads.

The training of dogs for sled driving was poorly developed. A puppy was placed in harness with adult dogs where he had no choice but to conform, or he might be hitched to a small toboggan and made to follow the other teams. Young dogs that did not perform correctly were thought of as 'children' who were too young to really 'understand' what was wanted. At this age, a dog was not spoken to severely nor struck while being worked. Older dogs, on the other hand, were sharply reprimanded for disobedience, but as a rule they were not struck. Only under extreme provocation would the Mistassini kick, punch, or strike a dog with a stick.

A team was controlled by verbal commands only for starting and stopping. During much of the winter, teams were driven along well-beaten trails. Sometimes a man preceded the dogs, encouraging them to follow. If there was no trail, one was broken ahead of the dogs. In spring, when there was a crust on the snow and no way of making a trail, a different method was used. The driver often rode on the sled and controlled the team's direction with an axe handle or snowshovel. He swung the end of the handle along the crust on one side of the sled. If he did this on the right side, the team turned to the left; if on the left side, they moved to the right. This was usually practised in level and fairly open country. Sometimes the hunter controlled the direction of the sled by dragging one foot.

Generally, there was one man to each sled. When the load was heavy, he aided the dogs by pushing the vehicle, often using a stick or snowshovel for this purpose. When descending a steep slope, a man usually rode the sled. He lay on top of the load and dragged his feet behind. If the slope was extremely steep, a spruce sapling was tied under the sled with the branches pointing to the rear to act as a brake.

During the winter when the dogs were being worked, better care was taken of them than in summer. They were fed daily. Food consisted of fish refuse, fish (most commonly suckers), moose liver and blood, caribou subcutaneous tissue, ptarmigan and Spruce Grouse intestines and bones, hare meat and bones, and oatmeal. Generally, the food was given to them raw, but occasionally it was cooked with the oatmeal. Frozen fish was sometimes fed to them but usually it was thawed before being given to the small puppies. Dogs were fed approximately one fish a day when working.

Dogs were generally kept tied outside the lodges, especially when meat was brought into camp; in cold weather a shelter was provided for them. This might consist merely of a windbreak of spruce saplings if the weather was not too cold; at other times, a more elaborate house was constructed. If it was made in the fall for early winter use, a hole was sometimes first dug in a bank near camp. The top and sides were enclosed with logs, and the lower half of the front was logged with an opening left at the top for an entrance. Boughs or moose hair, or both, were placed on the bottom of the hole for bedding. During the winter, the houses were not excavated. A lean-to of logs was built. This was covered on the top and sides with spruce boughs. Inside, moose hair and boughs were placed. During extremely cold weather, the dogs were brought inside the lodge and tied near the doors. Puppies were kept inside all winter.

When away from the base camp, the men cared for the dogs in much the same way. Often temporary houses were built at overnight stops. In cold

weather, boughs were cut and laid on the snow, on which the dogs could rest. If the location was exposed and the wind was blowing, such as on a lake where gill nets were being set, a windbreak of spruce trees was constructed. During March and April when the snow was granular, the dogs' feet were wrapped in canvas or moose hide to prevent their being cut.

In summer, little care was taken of the dogs. Some were kept tied. These animals were fed fish refuse and given water, although it was infrequently attended to. Those not tied foraged for themselves, eating rubbish and human feces.

CHAPTER SIX

Recreation and Amusements

Both adults and children engaged in various forms of recreation and amusements. These included playing games, amusing themselves with toys and musical instruments, dancing, and telling stories. No instance of story-telling has been recorded in this report. Smoking might also be considered a form of relaxation; and pets were a source of amusement. Gambling was rarely practised.

The most common diversion from everyday tasks for adults was sitting and talking. The summer was the time for this, since the people were primarily occupied with subsistence activities during the winter. Summer was also the time for dances which took place frequently, both on a large and a small scale. Old dance steps are now largely forgotten or at least not performed. One woman was observed to do a shuffling side step which was said to have been the old way for women, but not for men. The old steps have been replaced by what appears to be a Scottish jig.

Children played with toys such as model toboggans, sleds, canoes (Plate XVIIIA), sail boats, planes, bows, cross-bows, and slinging devices, made by the adults and occasionally by the children themselves. These were generally only played with by the boys. Girls amused themselves with home-made rag dolls or with sticks of firewood in lieu of dolls. Sometimes dolls were obtained from the trading companies. Occasionally, tops were made from empty spools. Swings were used by both boys and girls.

Balls were sometimes played with. They were made with a moose hide cover and stuffed with sphagnum moss, and a small stone was placed in the centre. Others were obtained from the stores. On occasion, a ball game was played by the boys, in which bats approximately 2 feet long were used. One end formed a short handle, which was roughly circular in cross-section. The rest of the bat was paddle-shaped and about 2 inches wide. One boy tried to strike a second boy with the ball. The latter defended himself with the bat, but if he had no success, he gave the bat to the other boy.

Children sometimes played the 'stick and bundle' game.¹ A number of black spruce twigs, each about 6 inches long, were tied together to form a bundle. Next, a stick approximately 5 inches long was sharpened at one end. The other end of the stick was attached to the bundle by a string from 1 foot to 2 feet long. The sharpened stick was held in the right hand, and at the same time the bundle was swung into the air. The purpose was to impale the bundle as it fell on the sharpened end of the stick.

Another amusement of the children was the 'caribou' game. This may have had magical significance. From ten to twenty miniature caribou were made from splits of wood bent to the proper shape. The caribou were then stood

¹For a more extended discussion of games among the Mistassini, see Speck (1930, p. 425-34).

in a group about five feet from the children, who then attempted to knock the caribou down using either a small cross-bow (*see* Cross-Bow) or a snap stick. The snap stick was a piece of green wood. It was grasped in the right hand, and a pellet of wood was held against the other end of it with the left hand. At the same time this end of the stick was drawn back and released to propel the pellet. The cross-bow was reported by an informant from the northern part of the Mistassini territory, and the snap stick by an informant from the southern area.

Adults and children both played the 'cup and pin' game. The 'cup' was made from seven phalanges of caribou, six of which were cut to form cones fitting into one another. A hole was made through the point of each one, the point of the last one fitting into the proximal end of a hollowed-out phalange. The other end was not pointed, but a hole was drilled through it. These seven pieces were strung on a thong. The tip of the tail of a caribou was attached to the end of the thong nearest the unpointed phalange; a hole was made in the centre of the tail; and a bone pin 5 to 5½ inches long was tied to the other end of the thong. The thong was as much as 20 inches in length and the tail 4 inches.

The game was played in the same manner as the 'stick and bundle' game. Scores were kept by assigning points to the various parts that might be caught on the end of the bone pin. One point was assigned to the concavity at the end of each of the first six cones; two points for the hollowed end of the last phalange; twenty, thirty, forty, and one hundred for four holes in the sides of the last phalange; and fifty points for the hole in the tail. Each person playing took a turn, and either one or three misses were allowed before passing the game on to the next in line. Sometimes there were teams. In one case, the stake was a beaver tail. Generally there were no stakes, and frequently a member from the winning team would move to the other side to even the score.

Shadow figures were made by the women and children for their own amusement. After the figure had been completed, the hands were held between a lighted candle and the tent wall in order to project the shadow. Figures observed included representations of the dog, fox, and hare. For purposes of description, the fingers are numbered from left to right with the hands palm down, beginning with the little finger of the left hand as '1,' and ending with the little finger of the right hand as '10.'

To produce a dog, the palm of the right hand was placed flat on the palm of the left hand at right angles to it. The fingers of the right hand except '6' were bent over the back of the left hand. The fingers of the left hand were extended. Fingers '5' and '6' were extended to form the ears. By moving '1' away from '2,' the dog was made to howl. The fox was made similarly, the mouth opening between fingers '2' and '3.'

To produce a hare, the back of the right hand with the palm up was placed against the back of the left. Next, finger '10' was hooked under '1,' and '7' under '4.' Finger '6' rested on the finger tips of '4' and '7.' Fingers '2' and '3,' flexed slightly, formed the front legs; '5' the hind legs; and '8' and '9' the ears. By flexing and relaxing the left hand, the hare was made to hop. Two people usually cooperated, the fox and the dog chasing the hare across the tent wall.

String figures were made by the children and adolescents. Three types were recorded. The terminology for the following description is taken from *Notes and Queries on Anthropology* (1960, p. 335-7).

In the first type, the string was placed on the hands so that each thumb and each finger held a loop, with the strings on the radial and ulnar sides. A palm string extended between the ulnar side of the thumb and radial side of the little finger. Now the middle finger of the left hand was brought from the proximal side below the right hand palm string. The right middle finger was brought from the proximal side through the left palm string and extended. The thumb, middle finger, and little finger of each hand now had loops. Strings extended between the thumbs on the radial side and between the little fingers on the ulnar side. A string extended from the ulnar side of each thumb to the radial side of each middle finger, and from the ulnar side of each middle finger to the radial side of each little finger. Now, leaving the thumb and middle finger loops in place and holding all the fingers of each hand together, all but the little fingers were brought from the distal side under the ulnar little finger string. This string was slid over the backs of the hands until it rested on the proximal side of the first radial thumb string. The next movement reversed the above and brought the figure back to the initial position before the above was performed. Then, the thumbs and fingers of each hand were held together, and each hand was simultaneously brought from the distal side under the radial thumb string. This string was slid across the backs of the hands until it rested between the ulnar sides of the little fingers. The second and third steps may be alternated for the individual's amusement.

The second type was the 'mouse' and is described in *Notes and Queries on Anthropology* (1960, p. 338-9); accordingly there is no need to repeat it here.

In a third type, the string was placed on the hands so that each thumb and each little finger held a loop, with strings on the radial and ulnar sides. A palm string extended between the ulnar side of the thumb and the radial side of the little finger. Next, the thumbs were brought from the distal side over the ulnar little finger string. This string was picked up on the dorsal side of the thumbs. Each thumb then had two loops, the strings of one extending from the ulnar side of the thumb to the radial side of the little finger and lying across the palm. The other string of this loop extended between the radial thumb strings. The second loop had a string extending from the radial side of the thumb to the ulnar side of the little finger, between ulnar sides of the thumbs. The little fingers were brought from the proximal sides under the ulnar thumb strings and returned. Next, the middle fingers were brought from the distal sides between the palm and string extending from the radial side of the thumb to the ulnar side of the little finger and returned. The radial thumb string was slipped between the thumb and index finger by bringing the thumb from the distal position under the string. Similarly, the ulnar little finger string was brought between the ring and little fingers. Finally, the two remaining strings were held taut, and the fingers were alternately flexed, straightened, and separated.

Children and adolescents, and sometimes women as well, might amuse themselves by biting designs in birchbark. The bark was separated into very

thin sheets. A sheet was then folded and bitten, and then unfolded to observe the design produced.

Children played a counting game similar to the Western 'eeny, meeny, miney, mo.' The phonetic sequences are given below in lines 1 and 2.

Line 1: *ka la pa si stAmAw nanAw kosoman*
semIni katAli katAhpō

Line 2: *le li wek ce ci pa lek cAp*

The sequences of line 1 were repeated, one sequence for each person, until only two children were left. A child was eliminated each time the sequence *katAhpō* occurred. Then line 2 was repeated by the two remaining children. The sequence *cAp* designated the loser.

The sequences appeared to have no meaning. The sound /l/ was foreign to the Mistassini dialect, suggesting that the game may have been borrowed.

Card games were a form of amusement for adults, with children sometimes joining. The loser was snapped on the forehead with his opponent's second finger. A form of checkers was also played by the adults and sometimes by children.

During the winter, the boys slid downhill on toboggans. Skis were used by adults as well as by children.

In 1953-54, snowmen were built by the children on several occasions. Unfortunately, no information was obtained whether these were purely for amusement or to bring the north wind (see Flannery, 1946, p. 266).

In summer, the children swam when the weather was hot. Even adolescent boys went swimming but not the girls or older people.

Occasionally, two men would wrestle, one trying to throw the other.

Smoking may be considered another form of relaxation for adults, although apparently it still had at times certain religious connotations. Red slate pipes (Plate XVIIIB) have been reported for the Mistassini Indians (Speck, 1923, p. 455). No information could be secured from informants regarding them, although pipes were still made if manufactured ones could not be obtained. A piece of alder or black spruce, approximately the size and shape of an elbow pipe, was chosen. The wood was split, and each half was hollowed out to form the bowl and stem. The two halves were then bound together. Another variety was made from a soft stone, obtained along the shores. This was hollowed out to form a pipe bowl; a stem was made from black spruce. At present, briar pipes are obtained from the trading companies. Those with curved stems are preferred, as they can be conveniently smoked lying down.

Formerly, when tobacco was scarce, the bark of several different species of trees or shrubs, such as the red osier, dogwood, alder, willow, or black spruce was dried and mixed with tobacco. Today, tobacco is in the form of either leaf, twist, or cut tobacco.

Pipe cleaners made of bone were said to have been used in the past. The wing feathers of geese, Spruce Grouse, ptarmigan, and loon were used to clean the stems.

Formerly, tobacco pouches were made of the skins of such animals as the otter; they were also made of smoked moose hide. The pouches closed with a flap and were made secure with a hide thong. The flap was decorated with

either embroidery or tufts of coloured string. Today, tobacco pouches are occasionally made of smoked moose hide. These roll up and are tied with a thong.

Musical instruments consist of drums, rattles, violins, guitars, and jew's harps. The drum was employed for religious purposes but is described in this section for convenience. The rattle was an infant's toy, but it may formerly have had religious significance. Both the drum and rattle were aboriginal. The violin, guitar, and jew's harp, on the other hand, are relatively recent acquisitions from the West. The first two were played by the men; at least women were never seen playing them. The children played the jew's harp.

The drum was circular with two heads (Plate XVIIIA). The body of the drum consisted of a piece of larch approximately 5 feet long and 3 to 4 inches wide, bent into a cylinder. The ends were held together either with nails or thong, or a combination of both. In addition, there were four hoops, each about one-quarter inch square in cross-section with an inside diameter slightly greater than the cylinder. The ends of the hoops were joined by a lap splice held with thong or string. Each head was made from one caribou skin scraped very thin. To assemble a drum the edges of a hide were wrapped around one of the hoops which was then slipped over the cylinder. A second hoop was slipped over the cylinder from the same side to secure the first hoop. The same procedure was followed for the opposite head. The two outside hoops were laced together across the cylinder. A suspension cord was attached to the lacings at one point; both were of moose hide or string.

A fine thread snare was stretched between the outer hoops across the heads, and four or five pieces of wood about 2 inches long and dumbbell-shaped were attached to each snare. One informant reported the use of fetal moose and caribou leg bones in place of wood.

Sometimes the drums were decorated, and a circle of red dots was placed about the circumference of each head. At the centre of each head, there was a small circle of red dots through which passed a cross of red dots. On occasion, a realistic design was painted in place of the circle and cross. Sometimes this was apparently a response to the accomplishment of a successful hunt predicted by the drum. The outside edge of the outer hoop might be painted red.

The drum stick was about 9 to 10 inches long, with an approximate diameter of $\frac{1}{4}$ inch. One end was inserted through the centre of the top and bottom surfaces of a small can about $1\frac{1}{2}$ inches in diameter and $\frac{1}{2}$ inch deep, which contained a few shot. After the can had been attached to the stick, it was sometimes covered with hide.

The rattle was made of birch wood and hide. A strip of wood about $\frac{3}{4}$ inch to $1\frac{1}{4}$ inches wide and $\frac{1}{4}$ inch thick was bent at one end to form a hoop about 3 to 4 inches in diameter. The other end, which formed the handle, was slightly curved and was about 5 to 6 inches long and not quite so wide as the hoop. The hoop was covered with unsmoked caribou or moose hide which was sewn together along the midline of the hoop. Occasionally, the rattle was covered with ling skin rather than moose or caribou hide. The fish was skinned starting from the head, and the skin was scraped a little to thin it and to lighten the colour. Ling skin was considered less attractive but more durable than hide. Shot was placed inside.

The heads of the rattles were sometimes decorated. The decoration might consist of a circle of red dots about the edge of each head and a cross formed of red dots at the centre. A hole was drilled near the end of the handle to which several lengths of coloured string were attached.

CHAPTER SEVEN

Conclusions

As pointed out in the *Introduction*, the Mistassini Indians were one of the few groups in North America to have retained much of their native material culture intact in spite of three hundred years of contact with Euro-Canadians. The fact that no one but the fur trader and missionary was, until recently, interested in the people or their land has allowed this situation to exist. The fur trader was vitally interested in keeping the Indians utilizing the land, merely having them change from the hunting of food animals to the trapping of fur-bearers. Pelts were exchanged for imported foods.

The main purpose in preparing this work was to place on record the material culture of the Mistassini Cree. Although this was the major aim, of secondary interest were the changes that have occurred in the material items of the people. Although the Mistassini have retained much of their former material culture, there have been categorical changes: *Losses*, *Substitutions*, *Innovations*, *Additions*, and *Copies*. The following figures as to the number of items affected are but crude counts, because it does not seem fruitful, certainly in a work of this nature, to attempt to rigidly define a cultural trait, as has been done in the past. In this discussion, a bow, for instance, is considered one trait, not two, consisting of the stave and string. Therefore, the bow is considered an aboriginal trait, even though the string is made of twine purchased from a store. Furthermore, is a woollen blanket an *Addition* to the trait inventory or a *Substitution* for rabbitskin blankets? Both exist at present, although the woollen blanket has in part replaced the hare skin blankets. Accordingly, depending upon the criteria selected, slightly different numbers would be found in each category of change. *Losses* form one of the largest categories, there being more than thirty items included here. In most instances the *Losses* have been made good by *Substitutions* secured from the traders. Only the moose call and sturgeon spear have not been replaced. *Substitutions*, therefore, number over thirty items. *Innovations* were few, not amounting to more than six. Perhaps in certain cases some of these were derived from neighbouring Indian groups. The crooked knife is an old trait, but it may actually be derived from European sources and should not be considered an innovation. The axe-head scraper, thong cutter, and planing board have not, to the writer's knowledge, been reported for any other Montagnais-Naskapi group and may truly be Mistassini innovations. *Additions* to the realm of material culture were not so extensive as one might have expected; these numbered only about fifteen items. *Copies* of Euro-Canadian items were somewhat more extensive but in most instances were the same as the *Additions*, simply being native-made rather than purchased.

European contact with the Mistassini Indians was, of course, a historical accident and cannot per se explain the changes that have occurred in the

material inventory of the people. Why were certain items borrowed and not others? Why were certain innovations made? In the early days of contact, the Indians' choice of goods was limited to the few items the Europeans could move into the country. But with time this situation changed, and a wider selection of goods became available locally, until today, with access to store catalogues, there has been a still further widening in the range of goods at the Indians' disposal. Theoretically, one might imagine that nothing of the native material culture would remain. That this was not the case may be explained, in part at least, by the following factors: 1) the low income which made it impossible to purchase all the goods desired, 2) the maintenance of a trapping and hunting economy necessitating mobility, which prevented the accumulation of a great many objects, 3) the lack of suitable or adequate replacements, and 4) the desire to retain certain of the old ways, or a 'traditionalism,' which inhibited changes.

Low income was a major factor in preventing the acquisition of a large range of Euro-Canadian material items. As an example, the Alfie Matoush hunting group of thirteen people, two married men and two teenage boys, the rest being women and children, during 1953-54 earned or received through government aid approximately \$3,000, of which more than \$1,000 was spent for food alone. This left less than \$2,000 for all other expenditures. And this group had one of the highest incomes of any Mistassini hunting group.

The second factor is, in effect, linked with the first. Even though mobility is necessary to maintain a trapping and hunting economy, material goods could have been accumulated and moved by planes, for instance. But the limited income does not allow this, and the people must rely on traditional means such as toboggans, with manpower the primary motive source, which limit the amount of goods that can be transported about the country.

The lack of suitable or adequate substitutions for some items of Mistassini material culture is again, in part, related to the low income received. In many instances it is cheaper to manufacture the item locally than to have the comparable item imported. This is true of such items as snowshoes, toboggans, sleds, and sawhorses.

Finally, the Mistassini have retained certain items such as mittens, mocasins, drums, wooden ladles, and certain bone tools, in spite of the fact that substitutes might have been found. The reasons for this 'traditionalism' are apparently diverse. Greater efficiency of the native item, or a belief that such is the case, and simply an adherence to a traditional way of life are some of the factors involved. This is a field of investigation which has not received the attention it deserves among the native peoples of the eastern subarctic.

The above is an attempt to isolate some of those factors which inhibited changes in the material culture of the Mistassini Indians. But changes did take place. What factors can account for these? An examination of those items acquired from the Euro-Canadians shows that cloth and metal were the major substitutions for bark, hide, stone, and occasionally wood. Wooden objects, and to a certain extent bone, were, in the main, the ones which have been retained. Perhaps this is due to the fact that the Indians have rarely been presented with substitutes for wooden objects. Also, wood is common and easy to work now that metal tools are available. Possibly the selection of cloth and metal was based on their inherent superior qualities (in some

ways), which were recognized as superior by the Indians. Although this factor played a large role in the choice of items selected by the Mistassini, other factors entered the situation. The novelty of certain items offered by the traders caught the imagination of the people and induced them to acquire these. Psychological factors no doubt influence the selection of goods, but this is an aspect to be investigated by those who are qualified.

It is not the purpose of this paper to explore in detail changes which have occurred in the social organization, economic activities, and religious orientations of the Mistassini Indians with the introduction of new items obtained from the Euro-Canadians. Although the acquisition of these material goods is not the sole determinant of further changes, these items often do have effects (*see* Sharp, 1962, p. 69-90). The outboard motor, for instance, is beginning to alter the roles of men and women. Whereas formerly paddling the canoe was a joint enterprise, this now is not so frequently the case. Since it is only the men who operate the outboard motors, they are at present assuming some of the duties formerly assigned to the women, such as transporting game to camp, tending fish nets (although frequently they are accompanied by their wives), and collecting firewood. This being the case, the women are becoming more confined to the camp. The introduction of iron tools has allowed for a refinement in the manufacture of various pieces of equipment and, in some instances by reducing the time required to make them, has allowed the people more time for other pursuits. The acquisition of Western goods has also brought about changes in social groupings. Formerly the hunting group was a closely-knit economic, social, and religious unit, but this is not altogether true today. Western goods have come to be looked upon as private property, secured primarily through the trapping of furbearers. And, in turn, furs are considered private property. This has had the tendency of weakening the unity of the hunting group, and the nuclear family is emerging as the most prominent social and economic unit. The adoption of Western clothing has meant that the women have been freed from the task of making so many clothes, and it has relieved the men from the job of securing the hides necessary to dress the family members. Other changes could be mentioned to show the effect on the people's way of life through changes in their material culture.

Over the years changes in the material culture of the Mistassini Indians have been accelerating and will certainly continue to do so in the future. As more money enters the economic system of the Mistassini, more goods, of course, will be acquired, especially non-utilitarian goods such as violins and guitars. Yet this can take place only to a certain degree as long as the people remain primarily hunters and trappers, dependent upon mobility for their existence. But once the present economic system alters, and this appears to be a matter of only a short time, it is to be expected that their native material culture will rapidly disappear.

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APPENDIX A

Although nearly two hundred items of material culture are listed in the following appendix, this does not represent the total number that could be listed if general categories such as Bark Boxes, Moccasins, European Clothing, or Snowshoes were broken down further. In addition, some items have been neglected either because of insufficient data, or because they were freak acquisitions from outside. If the above were taken into consideration, the list could be greatly expanded.

A word of caution regarding the interpretation of the list. — A question mark indicates that no positive answer can be made because of meagre data. Furthermore, an asterisk may be placed in more than one column under a particular heading. For instance, tents are both native-made and purchased, or ice chisels and poling rods have native-made shafts and purchased metal ends, necessitating, in either case, an asterisk in both columns. Although in general there was sexual division of labour, in some instances either sex would make a particular object or else cooperate in producing an item such as snowshoes, where the man made the frames and the woman laced them. In this case, an asterisk is placed in each column. Finally, some categories, such as Moccasins, Stationary Snares, Steel Traps, Netted Snowshoes, and Sleds, since they each contain several variations, may have one variety still in common use, another infrequently used, and others no longer in use. In this case an asterisk is placed in each of the appropriate columns. In order to determine which variant is being referred to in any particular case, the text must be consulted.

Key

C — Common

R — Rare

NLIU — No longer in use

NM — Native made

B — Bought

M — Male

F — Female

Trait	Observed in Use	Occurrence			How Secured		Maker	
		C	R	NLIU	NM	B	M	F
SHELTERS								
<i>inImicUwahp</i>	*		*		*		*	
<i>sapUhtAwan</i>				?	*		*	
Conical lodge				?	*		*	*
Earth-covered conical lodge				*	*		*	
Dome-shaped lodge			*		*		*	
Tent	*	*			*	*	*	*
Log cabin	*		*		*		*	
Emergency shelter	*	*			*		*	
Shaking tent			*		*		*	
FURNISHINGS								
Fireplace	*		*		*		*	
Stove	*	*		*	*	*	*	
Poker	*	?			*		*	
Strike-a-light				*		*		
Magnifying glass				*		*		
Matches	*	*				*		
Bark match box				*	*		?	
Slow match				*	*		?	
Oil lamp				*	*		?	
Torch				*	*		?	
Candle	*	*				*		
Kerosene lamp	*		*			*		
Shelves and racks	*	*			*		*	
CAMP EQUIPMENT								
Supply tent	*		*		*	*	*	*
Sun shade	*		*		*		*	*
Toilet	*		*		*		*	
Cache rack	*	*			*		*	
Drying rack	*	*			*		*	
Cooking support	*	*			*		*	*
Bedding rack	*	*			*		*	*
Fleshing post	*	*			*		*	
Beaming log	*	*			*		*	
Toboggan								
Planing log	*	?			*		*	
Saw frame	*	*			*		*	
Coverings,								
bark	*		*		*		*	*
commercial	*	*				*		
Ceremonial hide	*		?		*		*	*

Trait	Observed in Use	Occurrence			How Secured		Maker	
		C	R	NLIU	NM	B	M	F
UTENSILS, CONTAINERS, and TOOLS								
Grease ladle	*	*			*		*	
Fish spoon	*	*			*		*	
Wooden spoon	*		?		*		*	
Bark box				*	*			*
Bark tray				*	*			*
Bark wrapping	*		*		*		*	*
Wooden dish				*	*		*	
Wooden cup	*		*		*		*	
Wooden box	*	*			*		*	
Fish skin container				?	*			?
Bladder container				?	*			?
Tissue wrapping				?	*		*	*
Stomach container	*		*		*		*	*
Stomach vessel				*	*		?	
Leg-skin bag	*	*			*			*
Chin skin container	*		?		*			*
Cloth bag	*	*			*	*		*
Bone skinner	*	?			*		*	
Flesher	*	*			*		*	
Beamer	*	*			*		*	
Semi-lunar knife	*	?			*		*	
Axe head scraper	*	?			*		*	
Thong cutter	*	?						
Stretcher	*	*			*		*	
Hare 'hide stick'		*			*		?	?
Bone 'beaver needle'				*	*		?	
Sacking needle	*	*				*	*	
Rabbit skin blanket needle		*			*		*	
Steel needle	*	*				*		
Sewing machine	*	*				*		
Stone axe				*	*		?	
Steel axe	*	*				*		
Axe handle	*	*			*	*	*	
Saw	*	*				*		
Crooked knife	*	*			*		*	
File	*	*				*		
Rubbing stone	*	?			*		*	
Bone awl				*	*		*	
Pump drill	*		*			*	*	
Hand drill	*	*			*		*	
Wood chisel	*	*			*		*	
Wooden wedge	*	*			*		*	
Mallet	*	*			*		*	
Clamp	*	*			*		*	
Vise	*	*			*		*	
Paint tools	*	*			*	*	*	
Snowshoe netting needle	*	*			*		*	
Mesh evener	*	*			*		*	
Spreader	*	*			*		*	
Lynx jaw 'un-lacer'	*	?			*		*	
Gill net netting needle	*	*			*		*	
Gill net gauge	*	*			*		*	

Trait	Observed in Use	Occurrence			How Secured		Maker	
		C	R	NLIU	NM	B	M	F
Snowshovel	*	*			*		*	
Ice chisel	*	*			*	*	*	
CLOTHING, BEDDING, and PERSONAL ADORNMENT								
Breech clout				*	*			?
Leggins				*	*			?
Hide dress				*	*			?
Hide parka				*	*			?
Hide caps				*	*			?
Moccasins	*	*	*	*	*			*
Leg-skin boot	*	?		*	*			*
Sealskin boot				*	*	*		*
Rabbitskin socks	*	*			*			*
Rabbitskin jacket	*		*		*			*
Mittens	*	*			*			*
European clothing	*	*			*	*		*
Moss-bag	*	*			*			*
Ground sheet	*	*			*			*
Rabbitskin blanket	*	*			*			*
Woollen blanket	*	*				*		*
Pillow	*	?			*			*
Hide mat	*	?			*			*
Hammock	*	?			*		*	*
Tooth brush	*		*			*		
Comb	*	*				*		
Comb cleaner			?		*			
EQUIPMENT for SECURING NATIVE FOODS and FURS								
Bow	*		*		*		*	
Cross-bow	*		*		*		*	
Arrows	*		*	*	*		*	
Quiver				*	*			?
Slinging devices, 'Throwing board' type				*	*		*	
David sling	*		*		*		*	
Slingshot	*	*			*		*	
Gun	*	*				*		
Gun case	*	*			*			*
Shot pouch	*	*			*			*
Deadfall	*		*		*		*	*
Hand-operated snare			*		*		*	*
Stationary snare	*	*	*	*	*		*	*
Spring-pole snare			*		*		*	*
Tossing-pole snare			*		*		*	*
Animal net	*		*		*		*	*
Bird net				?	*		*	*
Snowshoe trap			?		*		*	*
Steel trap	*	*		*		*		
Blind	*	?			*		*	
Decoy	*		?		*		*	
Moose call			?		*		*	
Gill net	*	*			*			*

Trait	Observed in Use	Occurrence			How Secured		Maker	
		C	R	NLIU	NM	B	M	F
Net float and sinker	*	*			*		*	
Gill net pole	*	*			*		*	
Bone fish hook				*	*		*	
Steel fish hook	*		*				*	
Spear			?		*		*	
Set line	*		*		*		*	*
TRANSPORTATION and TRAVEL								
Bridge	*		*		*		*	
Message stick			?		*		*	*
Netted snowshoe	*	*		*	*		*	*
Wooden snowshoe				?	*		*	*
Toboggan	*	*			*		*	
Toboggan 'skin sheet'	*	?			*			*
Sled	*	*		*	*		*	
Dog harness	*	*			*		*	*
Canoe	*	*		*		*	*	
Paddle	*	*			*		*	
Poling rod	*	*			*	*	*	
Sail	*		?		*		*	
Outboard motor	*	*					*	
Tumpline	*	*			*	*		?
<i>nimapan</i>	*	*			*			*
Hunting bag	*	?			*			*
Yoke	*		*		*		?	
Dog shoes		?			*		*	
RECREATION and AMUSEMENTS								
Toys (model toboggan, sled, canoe, sail boat, bow, cross-bow, slings)	*	*			*		*	
Doll	*	*			*	*		*
Top	*	?			*		*	
Swing	*	?			*		*	*
Ball	*	*			*	*		*
Stick and bundle game	*	?			*			*
Caribou game			?		*		?	
Cup-and-pin game	*	?			*		*	
String figures	*	*			*			*
Bitten birchbark	*	?			*			*
Cards	*	?				*		
Skis			*		*		*	
Wood and stone pipes			*		*		*	
Briar pipe	*	*				*		
Bone pipe cleaner				*	*		*	
Tobacco pouch	*	*			*			*
Violin, guitar, jew's harp	*		*			*		
Drum and drum stick	*	*			*		*	
Rattle	*	*			*		*	*

APPENDIX B

Item	Household #1	Household #2
	Quantity	
Axes: large	1-2	
hunter's	3-4	several
hatchet	1	
Bow	1 (toy)	1 (toy)
Beamers	several	several
	(generally made new each time if kills far apart)	
Bags: food	2-3	2-3
duffle	?	?
caribou leg-skin: large	2	1
small	2	?
for hymnals	2-3	2-3
Boxes: food	1	2
personal chests	1-2	?
Blankets: rabbitskin	2-3	1-2
woollen	several	several
Boots: leg-skin	4	4-5
rubber	1	0
shoepacs	3	2
Beaver skins for toboggans	3(?)	3(?)
Canoes	6	3
Crooked knives	2	1
Cups: metal	4-6	6*
Chisels: wood	1	0(?)
ice	1	1(?)
Containers:	aboriginal types are utilized and then discarded serving only a special function — fish skin and birchbark boxes not seen in use by these two households	
pails	many	many
kettles (large)	2*	2*
pots	several: each of various sizes	
pans	several: each of various sizes	
frying pans	several: each of various sizes	
wash basins	1	?
Drums	1	0
Drills: home-made	1	0(?)
pump	0	1
large brace	1	0
Fleshers	several	several
	(generally made new each time if kills far apart)	
Files	2-3	?

Item	Household #1	Household #2
	Quantity	
Gill nets	2-3	2-3
Grease ladles	2	1
Guns: shotgun	2	1
30-calibre	1	1
22-calibre	1-2	1-2
Garters (braided)	1-2	1-2
Harness (dog)	1-2	1-2
Hooks	?	?
Jackets: rabbitskin	0	1
woollen	4-6	4-6
Knives: hunting	?	?
jackknife	3	1*
butcher	several	several
kitchen	"	"
semi-lunar	1	0
Lynx jaw	0	1
Lamps	1	0
Mattresses	1(?)	0(?)
Mittens	4-6	6
Moccasins	6-8	8-10
Mesh eveners: bone	1	?
metal	1	1(?)
Motors	2	1
Mats: bear skin	2*	2*
Canoe canvas	several	several
Moose head skin	1	0
Caribou head skin	1	0
Needles: netting: steel } (snowshoe)	several	several
bone }	?	1*
steel	several	several
packing	2*	1(?)
Netting needles (gill net)	several	several
Net: beaver	?	?
otter	1	1
<i>nimipan</i>	1	2
Pillows	3-4	2*
Poling irons	2*	1-2
Pipes (briar)	2	2
Paddles: home-made	5	4-5
purchased	several	several
Parkas (cloth)	?	1-2
Paint brushes	several	?
Rubbing stones	1	0
Rattles	?	1
Radios	1	0
Sewing machines	2(?)	1
Snowshoes: (swallow-tail)	3	4
beaver-tail	2	1
pointed	0	0
Stoves: large	1	1
small	2-3	2-3
Skinning tools	3	?

Item	Household #1	Household #2
	Quantity	
Sleds	2	2
Shot pouches	2	1-2
Saws: buck	2	1
keyhole	7	1
hand	1	?
Spoons: fish	1	1
metal	maybe 12: of various sizes	
Snowshovels	3	2
Tents	3-4	2-3
Shovel (short — metal)	1	0
Traps: large	6	?
small	30-50	?
Tumplines	several	several
Toboggans	2-3	2
Tobacco pouches	0	1
Tarp: (moose leg-skin)	0	1
canvas	several	several

PLATES I TO XVIII



A. *inImicUwaph*



B. Dome-shaped lodge



A. Log cabin



B. Drying rack for moose and caribou meat



A. Grease ladle (ROM 965.117.31)



B. Fish spoon (ROM 965.117.4)



A. Birchbark box (NM III-B-4)



B. Leg-skin bag (ROM 965.117.21)



A. Beaver skin bag (ROM 965.117.34)



B. Cloth bag (ROM 965.117.18)



A. 'Roll-up' bag (ROM 965.117.25)



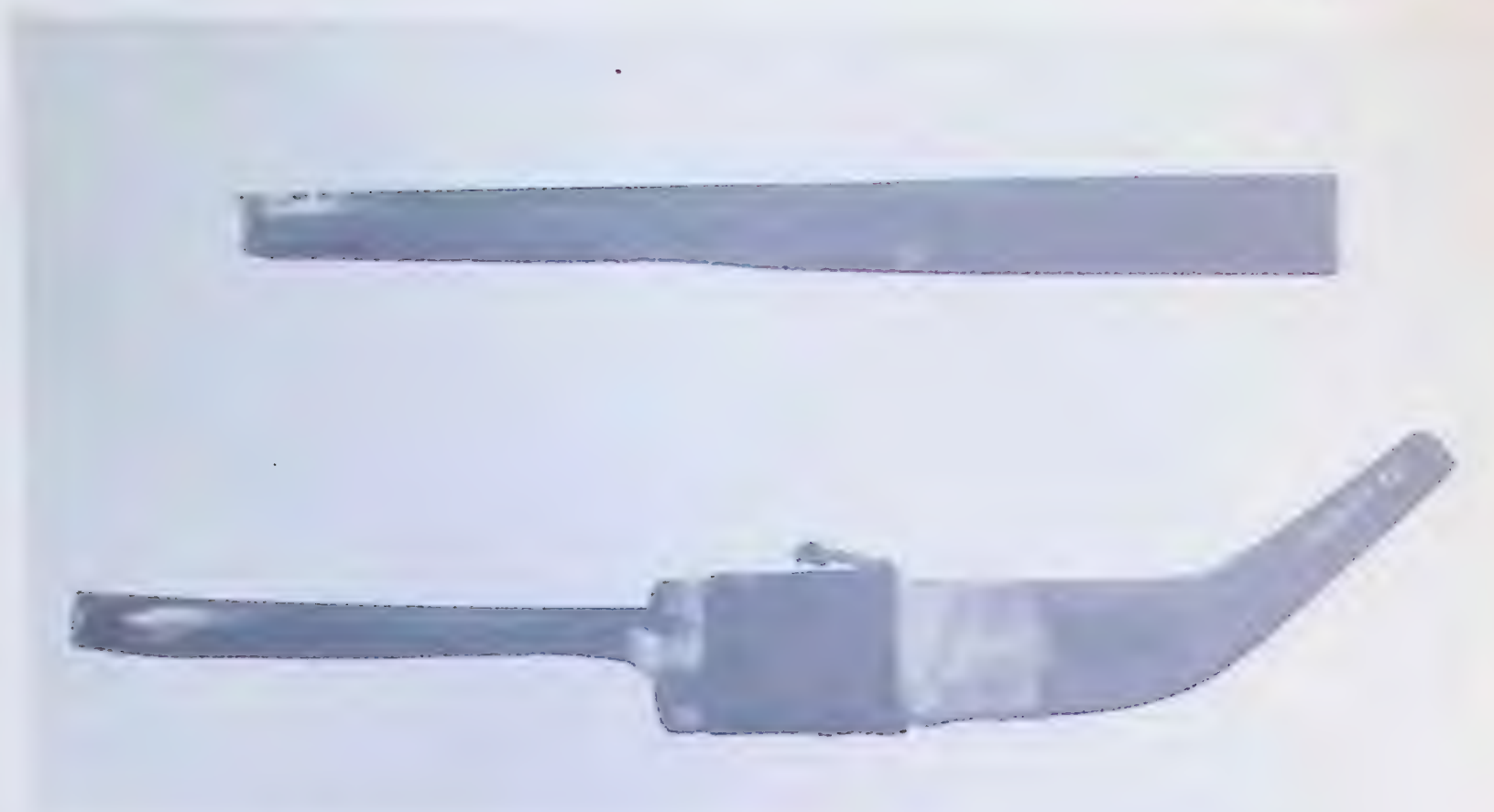
B. Beaver fleshers (ROM 965.117.14 and 26)



A. Semi-lunar 'knives' (ROM 965.117.7 and 40)



B. Rabbitskin blanket needle (ROM 965.117.8)



A. Crooked knife and blade (ROM 965.117.10 and 28)



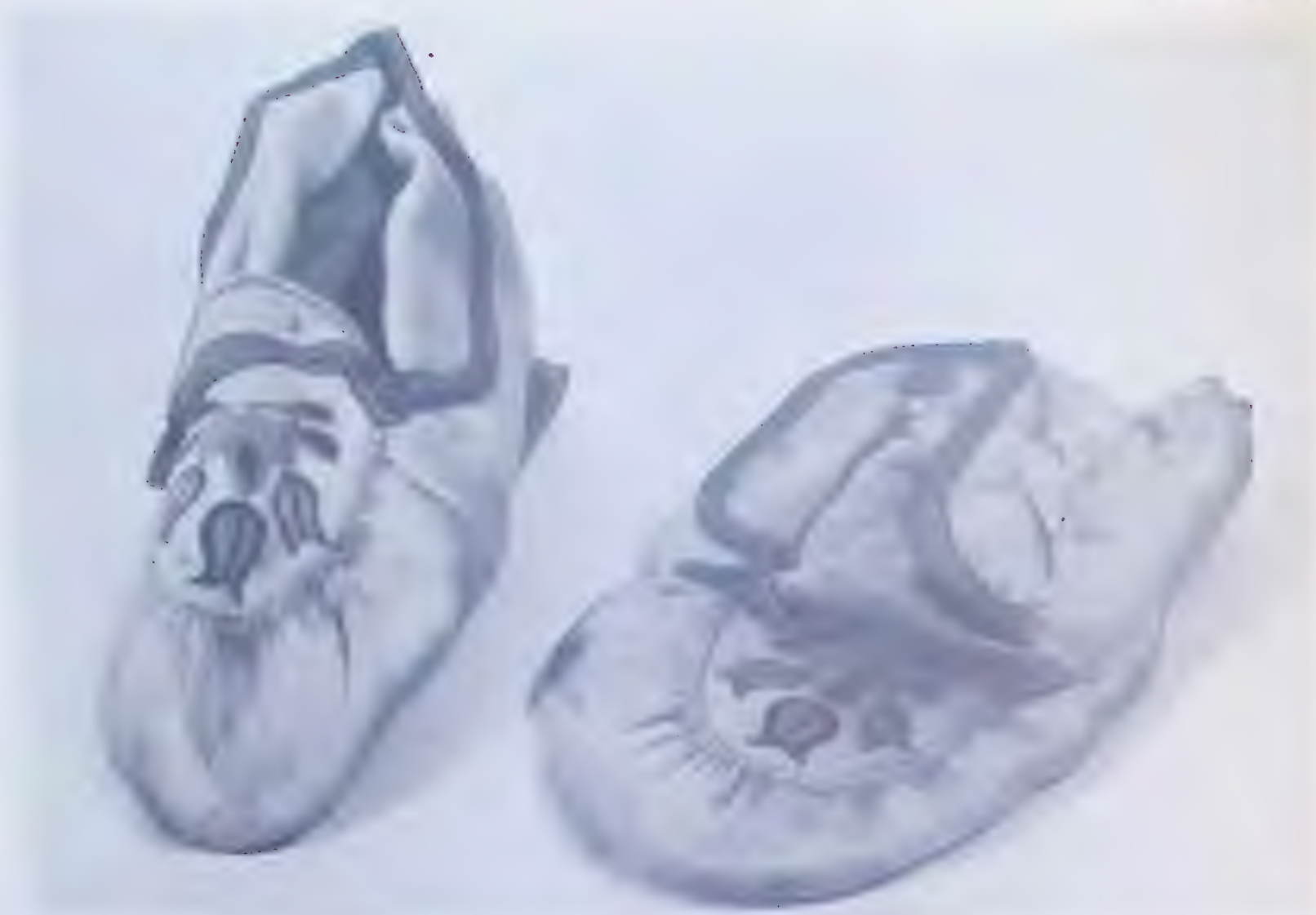
B. Gill net needle (ROM 965.117.1)



A. Snowshovels (ROM 965.117.32 and NM III-B-268)



B. Puckered work moccasins (ROM 965.117.29a and b)



A. Pucker dress moccasins (NM III-B-273c)



B. Mittens (ROM 965.117.12a and b)



A. Blouse (ROM 965.117.16)



B. Cradle board (NM III-C-463)



A. Blunt-headed arrows (ROM 965.117.36a and b)



B. Gun case (ROM 965.117.22)



A. Shot pouch (ROM 965.117.24)



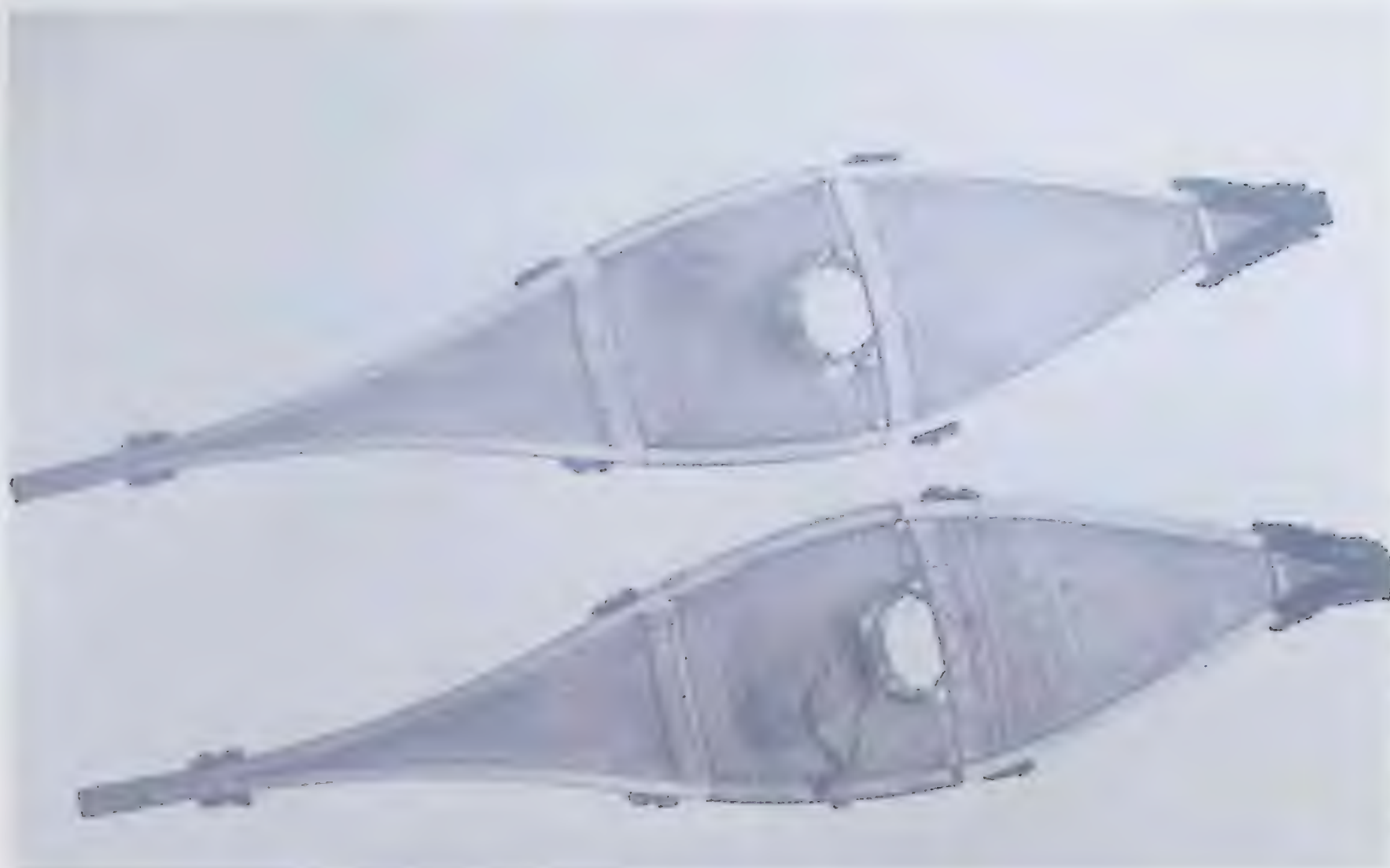
B. Shot pouches (NM III-B-12, III-B-7, III-B-13)



A. Fish hooks (ROM 965.117.2 and 37)



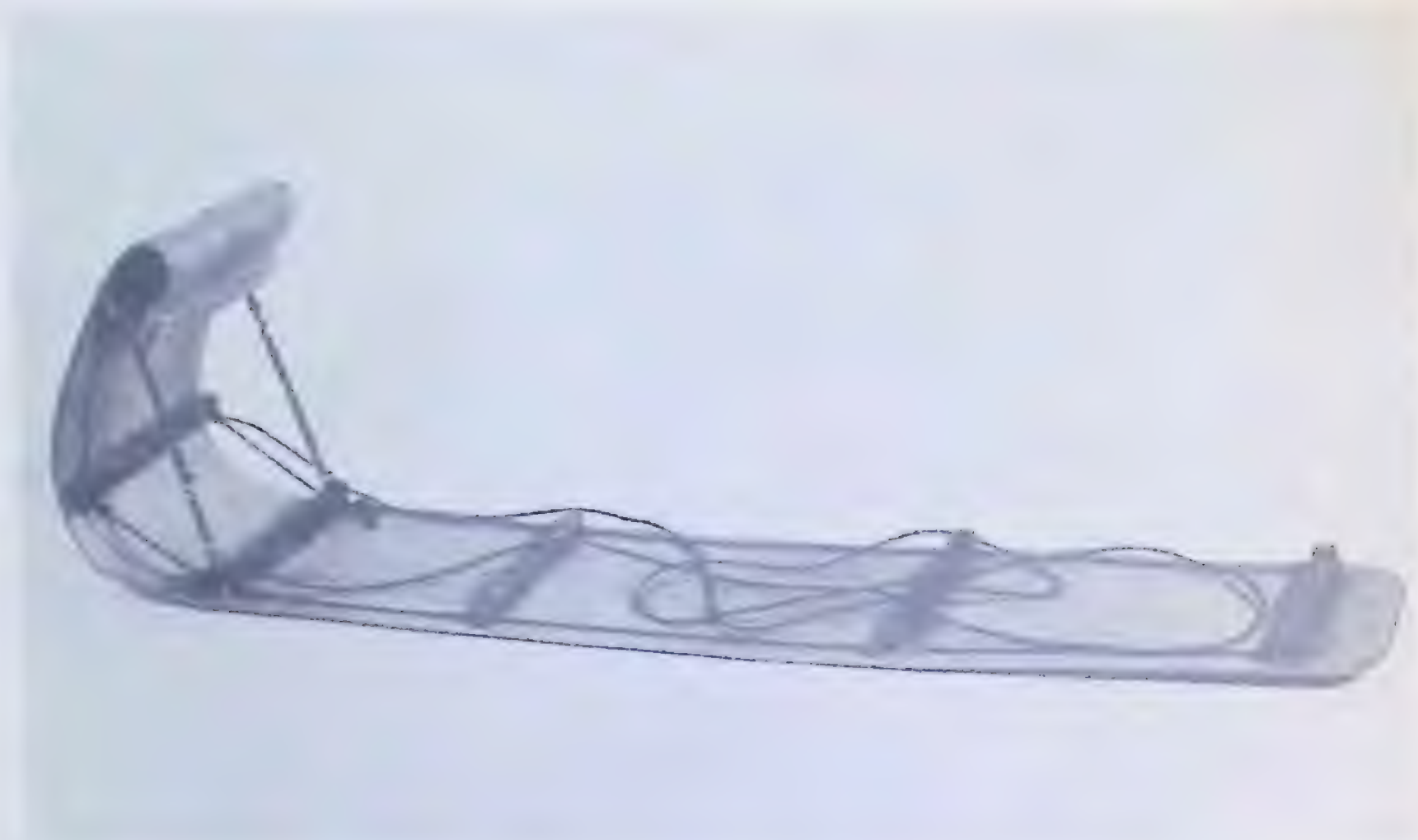
B. Swallow-tail snowshoes (NM III-B-2)



A. Pointed snowshoes (ROM 965.117.23a and b)



B. Small toboggan (ROM 965.117.27)



A. Small toboggan (NM III-B-267)



B. *nimapan* (ROM 965.117.19)



A. Toy canoe (ROM 965.117.39)



B. Stone pipe (NM III-B-8)



Drum (NM III-L-203)

OCT 3 1968

FOR REFERENCE

NOT TO BE TAKEN FROM THIS ROOM

Canada National Museum

Bulletin 218

MA82^r 8C21b

binding 1968

John Long

